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VOL. XLVIII.

LONDON, ONTARIO, FEBRUARY 13, 1913

No. 1064

A Telephone Talk

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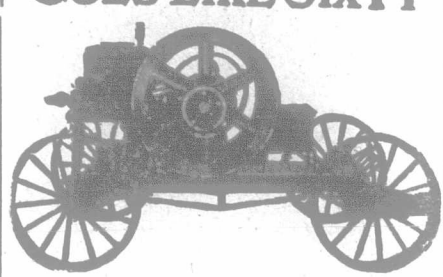
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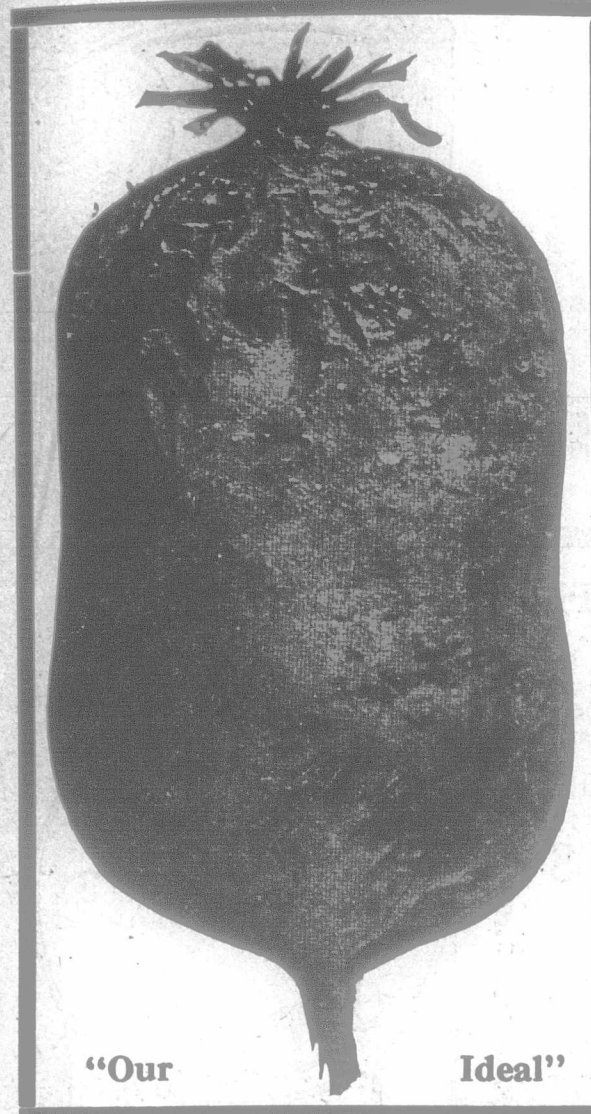
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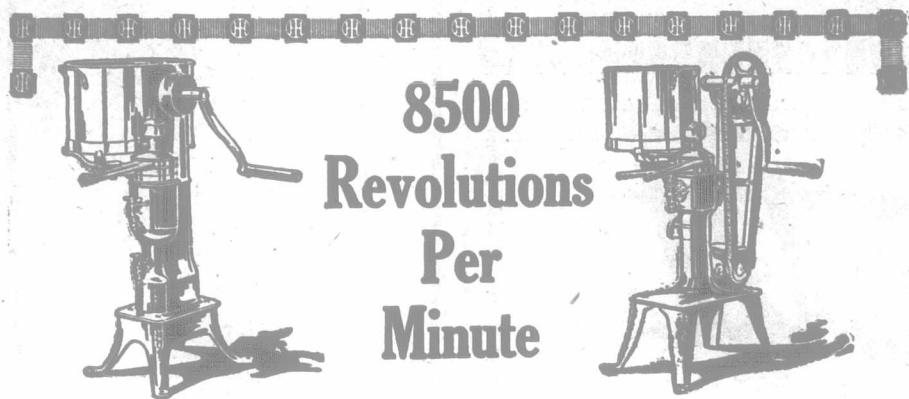
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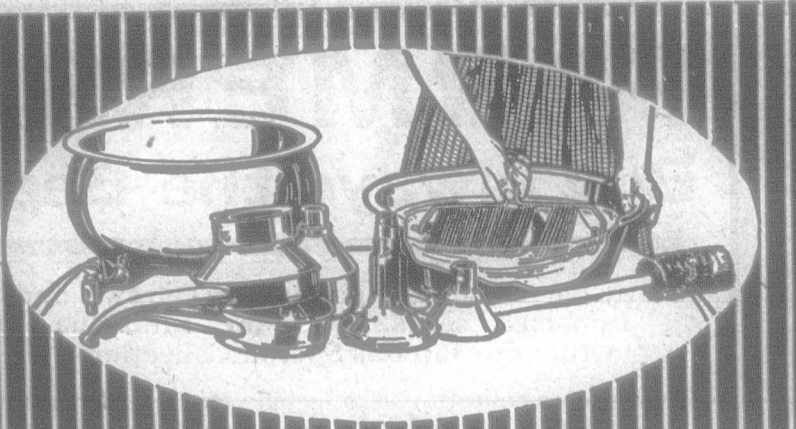
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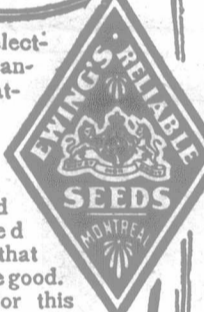
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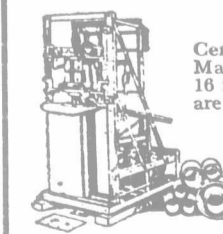
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The Farmer's Advocate

and
Home Magazine

PERSEVERE AND SUCCEED

ESTABLISHED 1875

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Vol. XLVIII.

LONDON, ONTARIO, FEBRUARY 13, 1913.

No. 1064

EDITORIAL.

December and January passed Western Ontario without making any ice thick enough to store, except on a few still ponds. What was it Kipping called us?

Nova Scotia, too, has a stallion-enrollment law. But this was not a case where Ontario had led. She merely followed the Western Provinces, and quite a way behind, at that.

The Annapolis Valley is destined to supply the export apples of the world, says President S. C. Parker, of the Nova Scotia Fruit Growers' Association. That's ginger. Who says Nova Scotia is asleep? She is not so, by any means, in the matter of fruit growing, but wide-awake, up-to-date fruit culture, and latterly in marketing as well.

"No name," "No address," "Not on at—," are the several memoranda still decorating quite a few enquiries turned over to the Editorial Department from day to day. The waste-paper basket is emptied every morning, and there is nearly always room for these questions from persons who do not comply with the rules. See nonpareil notice at head of second page of reading matter each issue and avoid disappointment.

Just for the satisfaction of it, keep track of the number of loads of building material, tile, fencing, and other stuff handled during any given year when you happen to be engaged in improvement work; also, keep track of the amount of time spent by man and team at such labor. You will be surprised to find how much value can be commuted into capital improvement in this way. If hired, this teaming would cost cold cash. Is one's own labor not worth as much as what is hired?

When an animal is fit for the block, it generally pays to sell it without much delay. An experiment at Ottawa detailed in the last Experimental-farm report enforces this point. A bunch of Shorthorn steers, dropped in June 1909, were practically ready for the butcher in the spring of 1911, but were held as "kept over" steers. The expected result was that, although sold at a high figure, there was a net loss for the kept-over year of \$2.76 each. Sold the previous spring, they would have made a reasonable profit.

Will some one please give a good reason why we should not have a Board of Bank Inspection composed of a few men of the calibre of our Railway Commissioners and invested with a similar scope of power and authority? They need not be auditors at all, but would employ the services of auditors, just as the Railway Commission has its experts. The prime requisites of the Commissioners themselves would be high principle, calibre, astuteness and backbone, with quite a wide latitude of free-ranging authority. More than audit is necessary. We want effective inspection by men with a mental grip of the whole banking situation. What say our readers?

Your Member and Your Interests.

The innocuous character of the amendments so far incorporated in the Bill revising the Bank Act, indicates that the money interests still have strong friends at Ottawa. One encouraging fact, however, is the position taken by the rural members, indicating that Mr. McArthur's articles in "The Farmer's Advocate" have taken effect. A recent Ottawa despatch stated that letters had been pouring in from constituents to representatives of both political complexions calling upon them to take part in the battle for more stringent control. One government member was said to have received 163 letters demanding a stand for government inspection and better protection for depositors. If the general public fully appreciated the influence of these personal letters to members, there would be ten times more of them. Your member is at Ottawa to represent you. See that he knows your mind, and squares up to the battles in your behalf.

The despatch referred to added that the bankers have not been idle, and parliamentarians were being besieged on both sides. Who will finally win? The bankers, of course, unless public opinion makes it so hot for the members that they dare not fail in their duty. Write your member and keep after him. Demand compulsory government inspection, as well as efficient audit, and if you have views about further security for deposits, taxation of note issues and bank mergers, state them. Who is running this country anyway?

The Agricultural Committee at Ottawa.

The Dominion Parliamentary Committee on Agriculture and Colonization for '12-'13 is composed of 98 members, 15 of whom are farmers. John A. Sexsmith, the chairman, is a very earnest and able representative of the farmer. He has long been connected with the East Peterboro Farmers' Institute and in the Township Council. The functions of this committee in the past have largely been in calling officers of the Department of Agriculture or Immigration and conducting a meeting not at all dissimilar to an ordinary Farmers' Institute meeting. The audience (quorum) is annually gathered by the secretary, who parades the halls for that purpose, and the questions asked by certain of the members would sometimes be worth reproducing at a regular meeting of farmers for the sake of the amusement.

Why cannot the committee take up and endeavor to solve some of the real problems of the farmer? It is the privilege of the committee to call and hear evidence and suggestions from farmers' representatives in any part of Canada.

Farmers' organizations might be asked to select representatives to give evidence before the committee on a wide variety of matters which the committee would be potent to deal with in recommendations to Parliament, such as the farm-labor problem, the gap between the farmer and the consumer, the fruit industry, the sheep industry, the need for or effect of legislation respecting insect and fungous pests, seeds, dairying, fruit-packing, contagious diseases of animals, etc., etc.

True, the farmer's voice is frequently presented in the form of a petition or resolution from an organization, but the petition too quickly finds its way to a pigeon-hole. Perhaps the wise

employment of the committee in this direction would awaken a more live interest among farmers as to the workings of their principal governing body, and even stimulate a very proper ambition on the part of some of them to increase the proportion of farmers in the Commons.

Develop Local Talent.

Both close and casual observers have been struck with the fact that the rural districts, having lost their original social institutions, such as the work bee, the spelling match and the singing school, have failed to develop good substitutes, and in their stead have been aping city forms of entertainment, securing, as might be expected, a very inferior grade of such attractions. The fact might as well be faced that the limited resources and audiences of the country will never be able to compete successfully with the city in obtaining the services of professional entertainers. When we want to hear a first-class lecture, enjoy a first-class concert, or witness a first-class play, we must make up our minds to visit the considerable centres of population, where it pays to book these. The third-rate imitations usually available in the country are seldom worth while. Better a good event once a year than half a dozen disappointments.

Does this mean that no worthy entertainment is possible in the rural sections? Surely not. We believe Peter McArthur struck the keynote when he urged development of local talent. We were the more impressed by the suggestion because it coincides with the receipt by the editor of a personal letter from a new settlement in the Peace River section, five hundred miles from the nearest theatre or lecture hall. Forced to rely upon its own resources, this community of three or four hundred scattered settlers has devised its own means of amusement and edification. Its annual fall fair is unpretentious, but possesses all the interest and friendly rivalry of a purely local competition. Games of baseball and football are organized, and an Annual Sports' Day is held, which everybody attends and in which nearly every family competes. Entertainments are gotten up entirely by local talent, the amount of which is surprising, as it would be in any neighborhood where there was something to draw it out. And so on. Visitors to this settlement, which began only four years ago, report that one could scarcely realize he was five hundred miles beyond the nearest city. Necessity for self-reliance has been the making of this community from a social point of view, as it would be of other neighborhoods.

We shall never have satisfactory social conditions in the country until we cease imitating city institutions and develop some of our own. The old-fashioned singing school, for instance, is well worth reviving. Alike as a means of culture and social enjoyment, it was excellent. We are not sure but that participation in a live singing class is preferable to mere attendance at the very best concert. Certainly it is ahead of the second or third-class programs, of which even the towns have so many.

We need, first of all, a new outlook upon this question of rural society; then original leadership and country life will take on a new interest and opportunity for personal culture that will never be the case so long as rural society is a cheap and skimpy pattern of the town. The motto should be: "Develop local talent."

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THE FARMER'S ADVOCATE AND HOME MAGAZINE.
THE LEADING AGRICULTURAL JOURNAL
IN THE DOMINION.

PUBLISHED WEEKLY BY
THE WILLIAM WELD COMPANY (LIMITED).

JOHN WELD, MANAGER.

Agents for "The Farmer's Advocate and Home Journal,"
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1. THE FARMER'S ADVOCATE AND HOME MAGAZINE is published every Thursday. It is impartial and independent of all cliques and parties, handsomely illustrated with original engravings, and furnishes the most practical, reliable and profitable information for farmers, dairymen, gardeners, stockmen and home-makers, of any publication in Canada.
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Reasonable Standards and Strict Enforcement.

The Nova Scotia Fruit Growers' Association has passed a resolution favoring a stricter definition for No. 2 apple, prescribing that it consist of sound specimens, of nearly medium size for the variety, and "not less than ninety per cent. free from scab, worm holes, bruises and other defects, and properly packed." This would make the No. 2 grade virtually as good as the No. 1, save only in size.

Rigid adherence to such a definition would exclude from the No. 2 barrel a great many very serviceable apples, which, though not fancy or No. 1, are well worth the shipping. Draw the line as tight as you please for No. 1, but do not be unreasonable with the No. 2 grade. This is no plea for shiftless fruit culture or careless packing. It is rather a plea for such reasonable and expedient standards as will allow the grower to ship as No. 2's good, useful apples, without violating his conscience or disobeying the law. Our idea is that the present definition for a No. 2 is quite strict enough if properly enforced. And that is just the point. We suspect that some of the fruit inspectors are still rather lenient in their interpretation of the law. A barrel of No. 2 apples conscientiously packed according to existing standards is good enough for anybody—as cooking apples anyway. We have had well-to-do local customers tell us they would rather have our No. 2 apples at \$2.50 a barrel, than our No. 1's at \$3.25. They found plenty of good eating apples in the No. 2 grade, and the rest could be cooked with little or no waste. But we see many No. 2's put up quite differently. Really, they would be none too good for No. 3; yet, thousands of such barrels are sold with seldom a prosecution.

We submit that moderate standards strictly enforced are better for the trade and better for public morality than over-exacting standards, which only a few scrupulously honorable men will attempt to follow fully. Enforce the present law.

Government Inspection of Banks.

For some years there has been a vague feeling of uneasiness throughout the Dominion regarding the Canadian banking system, which has been variously criticized, and by none more pointedly than the well-known writer, Peter McArthur. Whatever of truth may have been contained in Mr. McArthur's deductions, the fact remains that some form of check or supervision over the banks much more searching and effective than a shareholders' audit is necessary. Developments in banking circles in Canada of late years cannot but confirm the belief that the simple, direct, and only effective way to safeguard the interests of the shareholders, depositors, and public, is to provide for, not a mere audit, but a thorough inspection of the head offices of the bank by a public official appointed for that purpose by the Government. The stability of the nation is based as much upon the confidence of the people in its banking system, as upon its revenues and tariff, and banking institutions themselves should be the first to welcome any means by which such confidence may be strengthened and justified.

Premier Borden has said that "if the Government do not control the railways, the railways will control the Government." To our mind the same thing applies with equal, and even greater, force to the banking system, for the financial institutions of the country are largely the arteries through which great combinations of business interests absorb the very elements which contribute to their existence as such. It is only by a conscientious, thorough and rigid system of Government supervision of banking institutions that the control of the Government by financial or, in other words, "merger" interests, can be prevented, to follow out Premier Borden's axiomatic assertion.—St. Thomas Times.

TAKE NOTICE.

We ask every subscriber to examine the date on the address label of his paper to see if due credit has been given.

Sometimes subscribers pay local people, publishers or postmasters, who fail to report promptly, which causes trouble.

If you have not paid for 1913, please send us express order or postal note.

HORSES.

Now is the time to begin to put the finishing touches on the horse which is being fitted for late-winter or early-spring sale.

A well-broken colt will do far more work with less worry to himself than the colt which is too "green." Many youngsters will be doing their first hard farm work during the coming seeding operations, and it is important that they be thoroughly accustomed to the harness and to driving before called upon to do steady work.

When horses are placed upon the open market they are classified more or less according to the work which they are best suited to perform, and the price they bring is determined very largely by the indications which the horses show of being able to perform that work. It should not take the farmer long to decide which horse will be the most profitable for him to breed. His own work demands the draft horse, and this type of horse is most sought after by the trade. Heavy work is more plentiful for horses than speed work; then the logical conclusion cannot be other than that the draft horse is most profitable, all things considered.

If there is any one branch of live-stock husbandry which more than another requires a definite policy, and which to be made a success demands close adherence to that policy, it is horse breeding. Changing breeds each year when new stallions are making the season, crossing indiscriminately here and there in a vain effort to attain success from low-priced, common sires, breaking type in breeding and general haphazard methods never stamp success on the horseman. Determine first the kind of horse you are going to breed, and, with an eye fixed on that goal, proceed by the judicious mating of similar types to reach it by the shortest way possible. Deviations are dangerous. Stick to one policy, and one only.

The Season of Itchy Legs.

There are horses which with comparatively little exercise will come through the winter showing few ill-effects of heavy feeding, and there are others, unless regularly exercised and fed with the greatest of care, will show signs of trouble before the winter is far advanced. This does not mean that any horse should not get regular and sufficient exercise. No horse is so constituted as to be better off without it, but it is a fact which owners of horses often experience that some of their horses' legs come through in good condition, while others getting the same feed and care become swollen or "stocked" or itchy and sore. "Whip's" excellent article, which appeared in the issue of January 30th last, covered "stocking" fully and completely, but several queries have since come to the office regarding itchy legs. This trouble seems to be more prevalent in late winter and early spring. There are several stages of this itchiness from that in which no raw places or cracks appear, right along through cracked heels to "grease."

Many horses of the draft breeds, with natural beefy legs and coarse feathering, are more or less predisposed to this trouble, and when standing in the stable and being quite liberally fed, are quite commonly affected. In buying horses, all those showing any signs of an eruptive disease of the legs should be avoided. Itchiness in the first stages can be checked by careful daily attention, but the trouble is difficult to cure. For that itchiness which has shown no raw surface a cure can often be effected by applying once or twice daily a solution composed of one tablespoonful of Gillett's lye in a quart of warm water; but for a raw surface or where cracks are in evidence this dressing is too irritant and should not be used. Where the disease has reached the latter stage, dress once daily with a solution of 15 grains of corrosive sublimate in a pint of warm water. Part the hair carefully so that the lotion may be rubbed well into the cracks and raw surface. Keep the horse excluded from drafts and be sure to rub well with the dressing. A mistake often made is the application of ointments, healing oils, or grease of some kind. This should never be practised. Care should be taken in the feeding of all horses showing a tendency towards this trouble, and great care should be exercised once it makes its appearance to check its development and, if possible, effect a cure, as if it proceeds to the "grease" stage, there is little hope of a cure. Keep the horses well exercised and feed a few roots if possible, avoiding over-feeding or grain or heating material.

The Stallion Needed Work.

The Rural New Yorker gives a bit of actual experience with the working of stallions. Eleven farmers in the State of New York bought a fat stallion, fixing the fee at \$20 for a living colt. There was a clause in the contract that the horse must be a 60 per cent foal getter; but there was a joker in this also, to the effect that the secretary must report every month as to the condition of the horse, how many mares were being served. This, of course, he failed to do, and hence this clause was declared void. When the note was presented for collection, they found it had changed hands, and hence they could not plead fraud.

The horse served thirteen mares the first year, and there were three living colts. They paid \$800 for the stallion, with interest at 6 per cent, and paid \$365 for the keeping of the horse. So the cost to the shareholders was about \$119 each. They got a dividend of \$5.45 each, or will when the three colts are paid for. They were a sensible lot of fellows, these New York farmers. So they got around the table, talked it over in good humor, and concluded that they would take their medicine. One of them, who makes the report to the Rural New Yorker, agreed to keep the horse for his work.

As a two-year-old he weighed over 1,600 pounds; largely fat; and now, at four years, weighs a little over 1,500, largely bone and muscle. He served forty-two mares, and thirty-five of them are with foal.

Clipping Colts Along Back.

I just thought I would give you my remedy for colts sweating in stable, as I see a question about it in last number to hand.

I have had several do this, and have seen some others do it, too. I think it is the heavy coat of hair that is the cause. My remedy is to run the clippers along the back from tail to mane, just one strip the width of clippers, or, if there are no clippers handy, run the sheep shears along once.

In case of a licey colt, this is a great help in cleaning the lice off, but I run along the neck, just close to the mane, on both sides.

Huron Co., Ont.

R. C. MCGOWAN.

The Quiet Driver.

Few of the farm animals are so highly prized as the driving horse which is quiet and safe for all members of the family to drive. None of the others stand in so high favor with the ladies of the household. The illustration in this issue shows what confidence develops between a good horse and his frequent driver. The automobile is of such economic importance at the present time that no one denies that it is here to stay, and is bound to become more numerous. In the course of time the price is likely to become somewhat lower, and many of the well-to-do farmers will doubtless run their car but for the vast majority the horse will still continue to be the means of transit in common use. What should be done with every colt which is to be driven on the roads is to get him accustomed to autos, engines, street cars, and all such disturbers of horse equilibrium during his early days, and especially when he is being broken. True, there are old horses whose bump of foolishness is so large that any amount of persuasion, coupled with the daily meeting of these machines, is not enough to overcome their bewilderment upon the occasion of further meeting with such objects; but these are the exception, not the rule. A horse, like a man, can get used to almost anything, but there are a few so constituted as to never just fit in to new circumstances. A good driving horse is a joy forever, and happier is the life on the farm where there is at least one horse which may be hitched into the buggy at any time and which is capable of making reasonably good time on the road, with the safety of the occupants of the buggy, whether men, women or children, assured by the quietness and reliability of his equine majesty, the sensible horse. When ocean liners sink, it is "women and children first," to the rescue boats, and when buying or training a driving horse, the women and children of the home should be first considered, and quietness should be a first requisite. Besides being of economic importance, quietness in driving horses has a value which cannot be readily estimated, in so far as it permits of greater pleasure in the life of the weaker farm population.

LIVE STOCK.

It will surprise the feeder how much water an unweaned calf will drink, especially one which is not being fed roots. A youngster two or three months of age will often drink a half pail (one gallon) of water daily.

Raw eggs are one of the best remedies for scours in calves. Powdered chalk, 2 ounces; powdered catechu, 1 ounce; ginger, 1/2 ounce; opium, 2 drams; peppermint water, 1 pint, given in tablespoonful doses night and morning is said to be an effective remedy also. It is advisable to give a dose of castor oil first.

A changeable winter like the one which we are experiencing this season is not considered to be the best weather in which to feed stock. It is difficult to keep the stables properly ventilated, especially where a good system of ventilation is not installed; the cattle are much more likely to go "off their feed" during the mild spells; and if they are turned out in the yard, they very often suffer by the extremely sudden drops in temperature. The most satisfactory winter for the feeder, all things considered, is the winter of steady cold (not extreme) weather.

Various kinds of self-feeders have from time to time been tried in the feeding of live-stock, but no inanimate mechanism has yet been evolved, or ever will be, which can take the place of the natural-born practical, efficient stockman. Economy of production means that each animal must have individual attention. The little variations in appetite, likes and dislikes, make it necessary that the watchful eye of the careful feeder be ever on the animal.

The poor milking ewe will seldom be troubled with caked udder, but this is quite common with heavy-milking ewes which lamb in cold weather and are not well looked after. Very often it does not yield readily to treatment, and sometimes the ewe's udder becomes so swollen and hard that very little, if any, milk can be drawn from it, and in such cases it is necessary to allow the lambs to get some milk from another ewe, or to give them a little from a bottle. It is well if the lambs are strong to keep their hungry, because the harder they "bunt" and work at the udder the better. Keep such ewes warm and thoroughly bathe the udder with hot water. After each bathing, rub well with a mixture of lard and turpentine, mixed to the consistency of cream. Rub well in, as much depends on the rubbing.

In 1908 export cattle, to the number of 90,045 head, passed through Winnipeg. In 1911 the number was 1,475.

Very often the pig feeder is shocked to find the finest and fattest pig of his sucking litter dead in the pen. When the litters are too closely confined and are thus deprived of exercise, and at the same time are feeding heavily on the great milk flow of a sow, things often develop with fatal results to the fattest pigs. The young

will not take exercise of their own accord, stir them up every day with a whip. Occasionally pigs affected can be helped by giving them from one to two tablespoonfuls of linseed or castor oil. The best cure is prevention, however, and if the young pigs seem over-fat and are "wheazy" make them exercise, and cut the sow's feed down.

Feeding Hogs.

"The Farmer's Advocate" is asked to give space for a discussion of hog-feeding methods. For many years, not unwisely, the special attention of hog raisers was directed to the breeding problem as the foundation from the production point of view of the Canadian bacon industry. But, hand-in-hand with this, the feeding question has been regarded by farmers and experimenters. "What foods can be used to best advantage, and how shall they be prepared and fed?" are, in brief, the points upon which the results of experience are now asked. Methods vary. In a given county or district the same general class of foods may be used, but they will be prepared and fed in different ways, with apparently good and profitable results. Without repeated demonstrations recorded with scientific accuracy, it is not easy to say off-hand just to what extent one or other is best. At a number of Ontario Farmers' Institute meetings this season the subject as introduced by Wm. C. Shearer, Oxford County, proved decidedly popular. Mr. Shearer came squarely out in favor of two feeds per day as better than three. While the pigs in each of the two feeds would probably take a more full meal than in each of the three feedings, there might be a certain saving in material, and also an important item of labor eliminated. Then, in a case of comparative trial with young pigs, from start to finish, those under the two-feed system were ready for the market at a given weight very much earlier. In brief, the theory is that especially in the short daylight period of winter the three feeds are liable to be crowded so closely together that perhaps the only meal properly digested and assimilated is the last one at night. Now, what has been the actual experience of readers as to the best number of times per day to feed hogs and how many hours between?

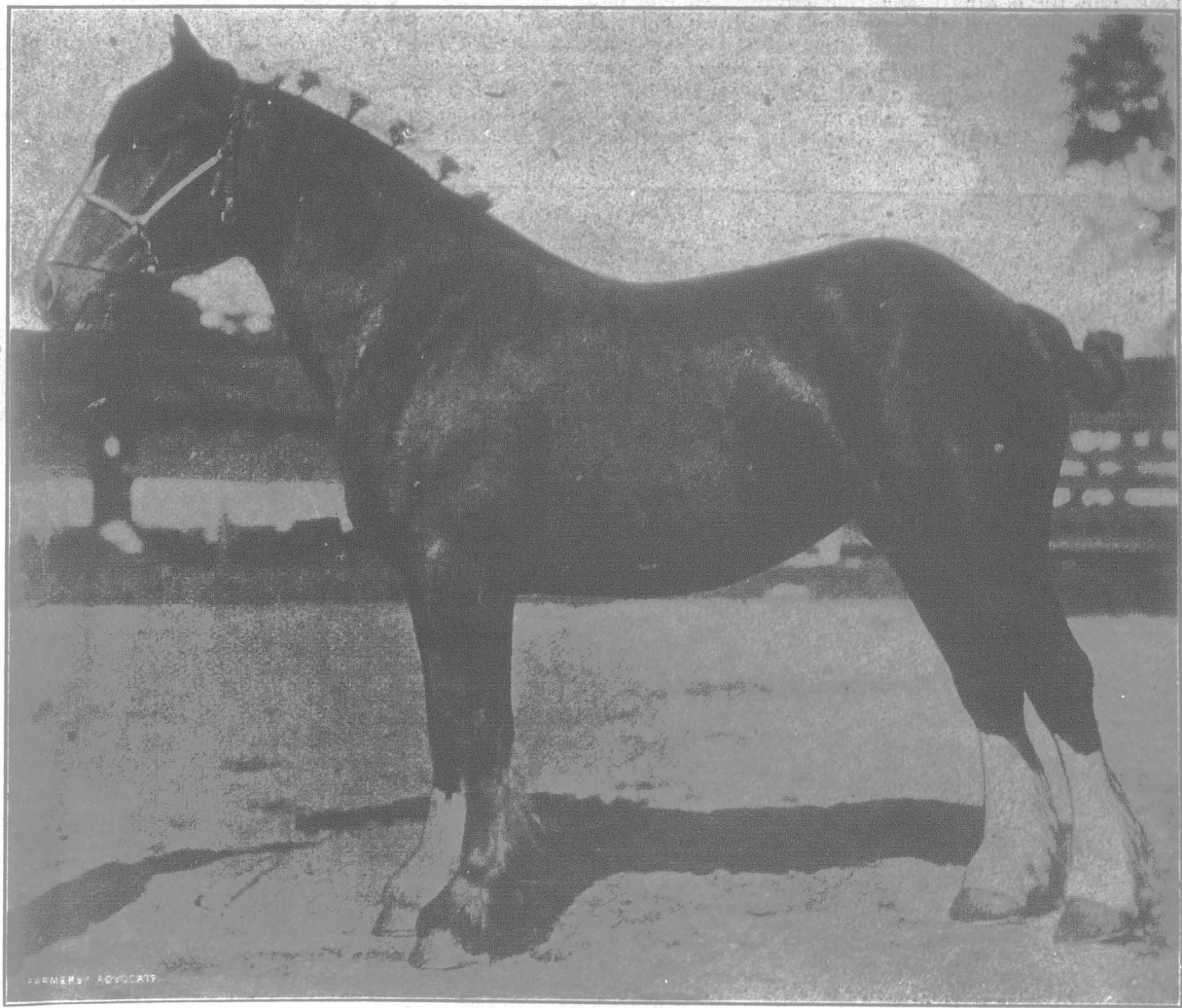
Another point upon which discussion is invited is the comparative advantage of soaking, of cooking or of feeding the grain or meal portion of the ration dry and giving the drink separately. It has been found by some who formerly had more or less digestive troubles in their pens, and pigs going off their feed and becoming crippled under the slop-feeding method, that the pigs were rid of these disadvantages and much labor saved to boot by putting the well-ground meal in the troughs dry and making the pigs do more chewing, moistening the food with their own



Not Afraid of Autos.

Mrs. Colver V. Robbins and her beautiful driving horse, River Bend, Ont.

pig's blood becomes too rich, and often his digestive system is injured as well. This is especially true when such a heavy milking sow has a small litter. Feed the sow on non-heating food, as a little bran and oat chop and, if possible, get some soil into the pen. This can sometimes be obtained from the root cellar. Allow the young pigs to run out in the passage-way, and if they



Tuttlebrook Sunflower imp. [685].

Shire filly; foaled 1909. Third at Toronto, and first and champion at London, 1912. Exhibited by Porter Bros., Appleby, Ont.

saliva. The drink is given separately, either before or after. Letters on these two points giving practical details and results will be welcomed.

Should Feed Be Bought ?

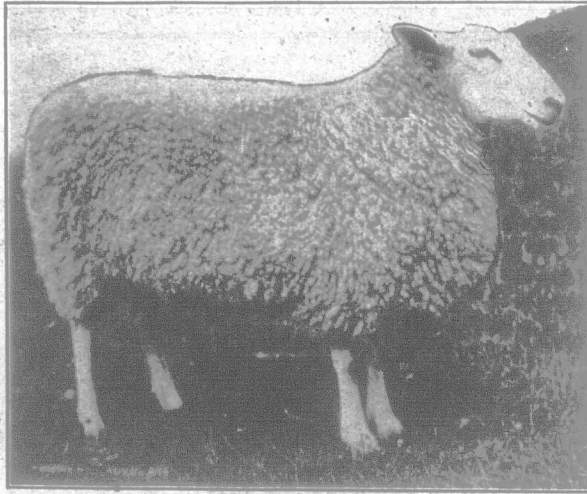
Some farmers believe that they should not buy any feed for their stock, holding firmly to the notion that everything eaten by their cattle, horses, sheep and swine should be produced on the farm. Others advocate the buying of considerable quantities of feeding stuffs as being economical. Should the stock farmer buy feed? We are all agreed that he should grow as much of it as he possibly can, and to do this he must keep a large stock in order to maintain his soil in a high state of fertility. He must keep that soil well tilled from year to year, growing those crops most required by his stock, and from which he can make greatest returns. Even with a maximum production from the fields, it often is very profitable, indeed, to buy feed—feed which cannot be produced on the farm, such as cottonseed meal, linseed meal, or some of the highly concentrated materials. Very often, too, it is possible to sell a certain grain and buy another which, in comparison to its feeding value, is not selling at as high a price. Market fluctuations in the various feeding stuffs often make it possible for the feeder to "sell feeds on hand and buy others, leaving a nice margin of profit in his pocket. When this is considered and when it is the case, as it often is, that certain materials not on hand are needed to balance certain rations and place them at the stock's disposal in such a condition as will increase the efficiency of feeds already on hand, and when we remember that all extra feed consumed on the place helps to make more manure to grow more feed to feed more stock, we have a strong case for the buying of certain feed. Certainly it pays under some conditions to buy some feed, and these are the conditions which are making largest returns for feeders at the present day.

A Self Feeder for Roughage.

The always-narrow margin between cost of feed and return from cattle feeding leaves but a small allowance for the large amount of labor entailed by methods ordinarily obtaining in Eastern Canada. In the West they are reducing this big item to a fine point by means of self-feeders. For instance, the Roberts Bros., of Alberta, have a self-feeder, 100 feet long and 11 feet wide, inside measurement, with a roof over. Studding 2 x 8 inches, four feet apart, is boarded up on the inside with 8-inch ship lap. The feed used is green-oat sheaves run through a cutting box. The feeder is filled by putting the cutting box, run by a small gasoline engine, at one end of the feeder, and the cut feed is blown through a long ten-inch galvanized pipe to the other end. As the feeder fills, the pipe is taken off in sections. By this means every inch of room in the feeder is utilized. If oats are thoroughly cured, the feed is said to keep perfectly, and, "weight-

for-weight, gives twice as much food as if fed uncut, and gives better results." This latter seems rather an extravagant statement, but may be partially true as applying to Alberta practice.

"The feeder will hold 75 to 80 big loads, a sufficient quantity to feed a large number of stock for half the winter. The yard about the feeder is divided into sections—stock feed from both sides—for horses, colts, cattle and calves. Sliding doors regulate the amount of feed, being raised as the feed lowers in the feeder. The



Leicester Shearling Ram.

First in class at Canadian National Exhibition, Toronto, 1912. Exhibited by A. & W. Whitelaw, Guelph, Ont.

services of one man are required for about one hour each day when feeding 150 head of stock."

Could this idea be advantageously adapted to Eastern feeding conditions?

Convenience in Stabling.

Editor, "The Farmer's Advocate":

Though not new the subject of stabling is always a live one, and alert to the real wants of its readers, "The Farmer's Advocate" could not, at this season, have opened a more useful subject for discussion. A few points from some forty odd years' experience and observation, I will try to set down. Conditions change, old stables must be remodelled and new ones built. Live stock must be kept to feed the people, and perpetuate the productiveness of the soil. In northern climates, like that of Canada and a large part of the United States, live-stock is housed, to a greater or less extent, for about half the year. That the stabling must be under wholesome conditions in order to health, comfort and profit, needs no argument.

The Canadian farmer and his American neighbor are short-handed. It will hardly be denied that that is perhaps the most noticeably serious handicap under which farming on this continent is carried on. Optimists to the contrary not-

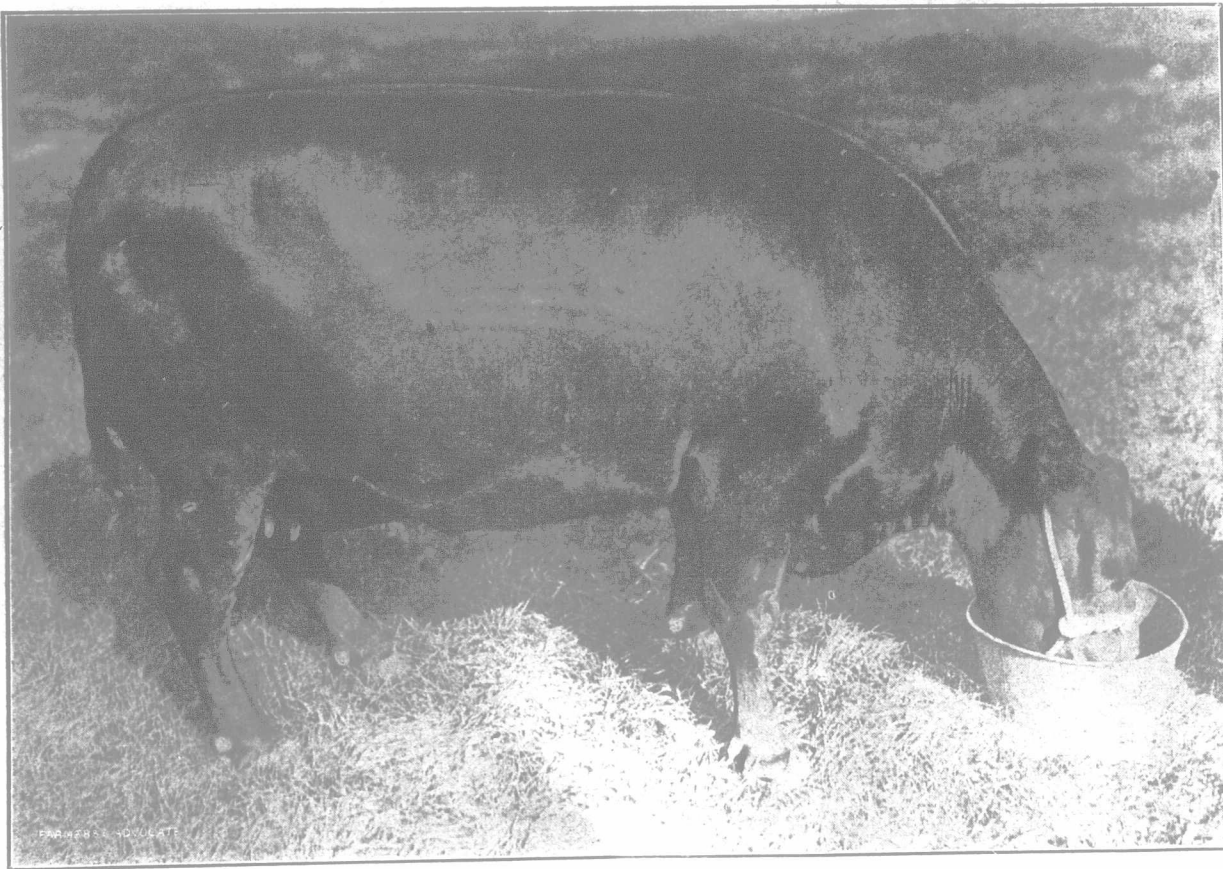
withstanding, I see no early prospect of a material change in that respect, nor do I look for one until a real re-adjustment of educational and fiscal conditions bring about a more equitable distribution of population between town and country. Nearly all of us have more acres and more irons in the fire than we can successfully handle with comfort. To feed and properly care for the live-stock, requisite on the average farm, requires more manual labor by far than is available, consequently we must set our wits to work to enable one man, by a handy arrangement of the stabling, and use of gravitation instead of main strength, to accomplish the work of two. Convenience I therefore set down as the first essential constituent of a good stable. It will probably be in constant use for fifty years. Do we ever stop to reckon how many thousand toilsome steps here and there, up and down, will be saved in the general care and feeding of stock by a convenient arrangement? It will run into years of time, and a mint of money. We may save a few dollars on the start or a few days of building time, but lay upon our whole future a mortgage heavier and just as inexorable as that of any loan company indenture. I put convenience first, for the further reason that it will insure some other necessary feature, such as light. A dark stable cannot be convenient, neither can it be sanitary.

The site sufficiently elevated to afford natural drainage is requisite to make possible a clean and comfortable barnyard. The construction of an approach to the upper floors of the barn is made easier and cheaper with higher ground on one side, but the level should never be high enough to obscure the basement windows. The entire length of the foundation walls should be tiled, and if the site be damp or "springy," there should be other drains across it and a good fall away with a clear outlet. Then, we shall have, at least, no dampness from below. A damp stable is an avoidable calamity.

On the score of sanitation, particularly in case of dairy cows, a one-story byre, with a system of carriers to silos and feed barns, has much to commend it, but it adds initial and constant subsequent outlay for labor by reason of its inconvenience. A one-story byre does not necessarily solve the problem. I have been in them dark, dirty and unhandy. To secure a healthful basement stable is not at all impracticable. Air and light are accessible, and a double flooring over head provides a ceiling that will keep most of the dirt from trickling down from the mows and upper floors. With basement stabling most of the forking of fodder is downhill, and we have yet to find an easier or more economical power than gravity for such work. Let the manger be simple. A six or seven-inch drop from the cemented feed alley is enough, and a foot plank next the knees of the cattle. If chain ties are used a six-inch plank spiked along the feed-alley side of the stall-head posts, which usually support the upper structure, will keep the cattle from crowding through, but my preference is for good swinging stanchions for convenience and cleanliness.

So much has been so well said and so often in "The Farmer's Advocate," on the kind and construction of walls, that I will content myself with remarking that cement-concrete, because of its easy utility, has practically put good old stone masonry out of business. To my mind the ideal basement wall rests on a footing or foundation of cement-concrete, rising at least a foot above the ground level, and above that good double-boarding, one course dressed and tongued and grooved, together with heavy building or tar paper between. In exceptionally cold districts, where continuous below-zero weather prevails at times, another coating of boards with a six-inch air space or space filled with some non-conducting material may be necessary. With plenty of gravel accessible concrete is perhaps, in most places, the cheapest wall, but cost depends on locality.

As a floor for sheep I have found nothing equal to mother earth, if dry, and except at lambing time, a single board wall will keep them warm enough. No other stock are so cheaply housed as sheep. Hogs need warmer quarters, but above all else they are to be kept clean and dry. In the sleeping place this is absolutely essential. A little slope in the floor where the droppings collect, is reckoned by many an advantage. After many years' experience with board floors, and over 15 years' trial of cement floors with pigs of all ages and different breeds, some confined continuously during different seasons and others with access to ample yards, I have no hesitation in stating my unqualified preference for the cement floors. No doubt in many quarters a prejudice exists against them, but the trouble is not with the floor. During the fifteen years' experience in rearing and fattening swine, there has not been a crippled pig or a seriously ailing one. This is evidence enough for me that cement floors are all right from a health point of view, to say nothing of



Elm Park Beauty 4th 1852 - 186672.

Aberdeen-Angus cow. First in class and champion female of breed at Toronto and London, 1909, and champion at London, 1912. Owner, James Bowman, Guelph, Ont.

ease in cleaning, freedom from rats, and drafts, the perennial breaking into holes of wooden floors, and the frequent waste of valuable manure. Cement I have also found to be most durable and satisfactory for cattle. After nearly quarter of a century's use under cows and fattening cattle, I would not return to wooden floors. About 1½-inch fall from manger to edge of drop, into the manure gutter, is probably sufficient, and a seven-inch drop into the gutter, the bottom of which, 18 or 20 inches wide, I would slope a little upward toward the passage-way, but from end to end it should be perfectly level, so that liquids and solids will most readily mix together with litter liberally used, and there will be no sloppy pool accumulating at one end. A six and a half to seven-foot passage behind is ample space for driving a team through with manure wagon or boat at cleaning time, removing the manure direct to the fields, where it is spread evenly on corn and root land at practically one handling. Digging manure out of a yard pile in hot spring weather, when other work presses, is a thing of the past with me. Of all arrangements and plans put into practice for years, I have found no other to equal this as a labor and manure saver with economy of equipment. Those to whom I have spoken who have used the litter carrier and manure spreader, speak very highly of them. In case of floors for horses, I prefer good sound planks over a cement base.

By all means let there be light, floods of it, in the stable. It's one of the best and cheapest things I know of. Light was one of the first orders of creation. For say every 10 feet of wall in length a window of eight lights, 8 by 10 inches or its equivalent, is not too much. An upright is preferable to a horizontal window, as it more thoroughly lights the lower portion of the stable space. Windows that swing on hinges are in the way sometimes, and those that tilt on a round iron bolt do not fit snugly enough. A window in two sashes fitted to move freely up and down like those of a dwelling are good. Too many windows, because of swelling, are difficult to move just when the opening is most needed. Probably the best arrangement I have seen is an upright six-light sash, four in the stationary portion and two above. The latter portion hinged to the lower, so that it will tilt back and inward when extra fresh air is needed. I saw one of these in the well appointed stable of a successful farmer the other day. Some other correspondent may tell you what is really "best."

Neither do I know the best system of ventilation, much as I believe in fresh air. Modern ventilation plans came in vogue after I ceased barn building. Ample head-room and passage-way space, doors and windows, not by any means hermetically sealed, and feed chutes have served to afford a partial ventilation that has, at least, saved our animals from suffocation. In this stable the manure has very rarely frozen, though the waterpipes have several times, in cold dips of weather, as would obviously be the case from what I have already stated on the score of ventilation, I prefer and aim not to have either frozen manure, water or turnips in the stable, but, like most marksmen, I may not always hit the bull's eye. ALPHA.

Stable Construction.

Editor "The Farmer's Advocate.":

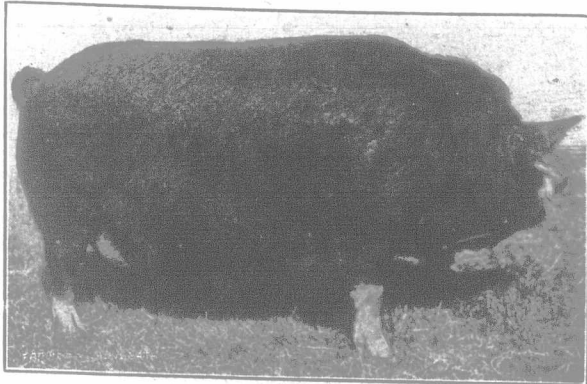
In reply to your questions re stable construction, I shall describe the various features mentioned as constructed in a dairy barn, built under my direction during the past summer. The ambition was to obtain the best possible conditions and most convenient arrangement for reasonable and judicious expenditure.

The site was a perfectly level one, a clay soil, with splendid outlet to the river. The farm was newly laid out, and included a lane through the centre. In locating the barn, we considered the lane, convenience to farm, and other buildings, facilities for yard and paddocks, position for light and appearance from road. In it we were anxious to include a good-sized dairy herd—housed under first-class conditions, a feed room, a small dairy properly located, housing for calves, root house, box stalls for bulls, calving cows, etc.

The barn is built in the shape of an "L," with the main stable running north and south, and containing space for sixty-six head. This stable has a good loft for hay and straw, and can be filled from either end, in the one case from the barn floor. It is 38 feet wide, is better lighted and more easily ventilated than is possible with a stable underneath a full-sized barn, because the width is conducive to good lighting, there are no dark compartments, nothing outside to obstruct or shade any part, and the outlet chutes are just the right length, with good insulation for best results. With this plan, the stable proper can

be shut off from all other compartments, and yet it is in close connection with feed, calves and dairy. It seemed impossible to obtain this with any other arrangement.

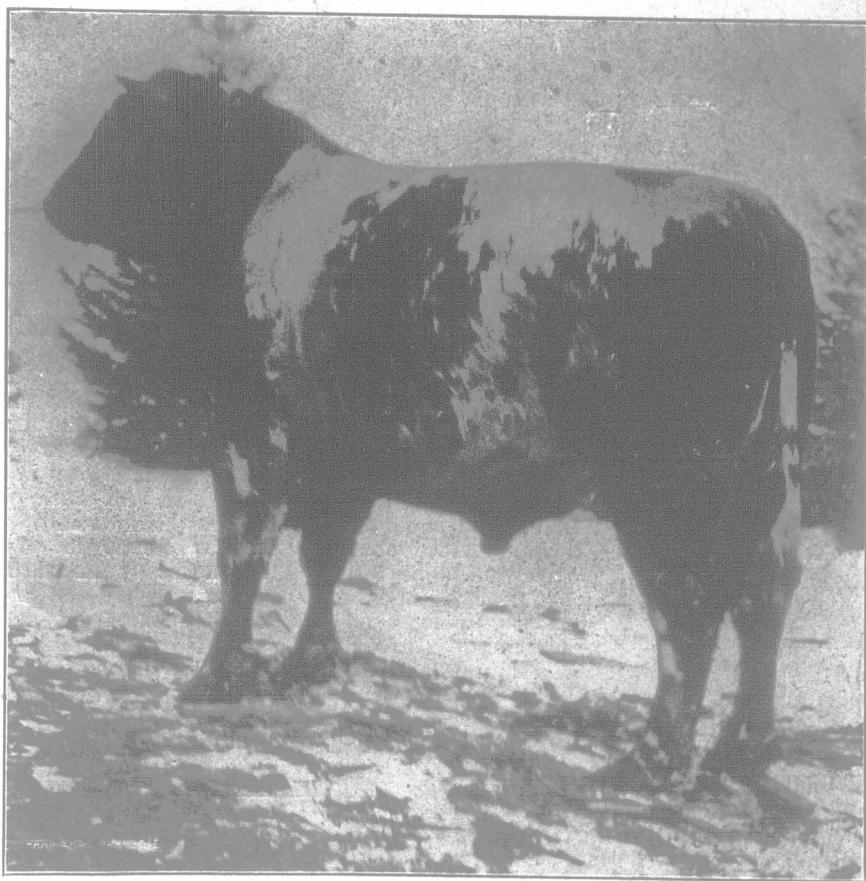
The drainage system was given particular attention, for the reason that I had seen so many futile attempts to install an effective and sanitary system of stable drainage. All urine drains to a tank through sewer pipe, 6-inch tile, and branches connect with this from the box stalls and from different parts of the gutter, as a gutter will not drain satisfactorily for a very great length. A number of handholes were arranged



Berkshire Boar.

First in class and male champion, Canadian National Exhibition, Toronto, 1912. Exhibited by J. S. Cowan, Donegal, Ont.

down the centre of the passage, underneath which runs the drain. This is to guard against choking and for flushing. Sewer pipe may seem a little expensive, but is necessary if a drainage system is thought of, as, in my experience, short tile will eventually be traps for filth and trouble. Along the south of the main barn are box stalls for calves, and a second row, with less sun, for older cattle, bulls, cows, etc. To the north of this, from where there would be little light, and which, in barns of considerable width running east and west, is often more or less dark and hardest to keep warm and dry, we have a well insulated root house, with provision for sliding the roots from the floors above. In the extreme



Royalist = 71300 =.

Shorthorn bull; weight, 2,450 lbs. Sired by Blood Royal (imp.), and to be sold at James Cowan's sale, Seaforth, Ont., March 6th.

east below the granary and at one end of cow stable, and next to the box-stall row lies the feed room, just outside of which are two silos, although not yet complete. These in this position will add to the appearance of the buildings, and are most convenient for either filling or feeding.

The construction of the walls is a sort of combination plank and timber frame, sheathed inside and outside. The spaces between the posts were filled in with 2-inch plank, thus saving girths and making for strength and insulation. This was papered outside, then boarded with rough lumber and shingled, while the inside was sheathed with inch lumber. The wall, therefore, is entirely of wood construction, and for condi-

tions here is very satisfactory. To obtain as satisfactory insulation with any other material, stone, brick, or cement, considerably more cost would be necessary in construction. The plank and shingle would suggest cost, but less frame work is necessary, and cheaper lumber can be used in sheeting.

In the matter of floors, concrete will rank first, but is not without its disadvantages. With good drainage underneath, plenty of straw or litter, and a warm stable, good satisfaction is usually obtained. A new material in the shape of cork brick has appeared on the market, and, when laid on a cement foundation, promises to be an excellent floor. On trial thus far, it seems durable, is warm, non-porous, sanitary, and is not slippery. Cost is again an item—for twenty cows an extra outlay of about \$60 would be required. This, after all, is not prohibitive, and in the stable referred to has been looked upon as a good investment.

In light, I would advise plenty of it. Nothing will effect so much change in any stable as the installing of windows. Efficiency in lighting, appearance in building, introduction of air, and convenience in manipulating are considerations. For this stable running north and south the windows were accordingly set well to the top of the wall to light the stable in centre. They were 3 feet 6 inches square, a nice size for the wall surface, and sufficiently deep to light floor underneath them. They are hinged at bottom and open inwards at top, being held by a chain. No side brackets were arranged, as, in my opinion, these are unsightly in the stable, obstructions in the passage, and also restrict the light, while at the same time the draft that might result by the air flowing in around the windows need not be a serious matter if they open at the top, hinged at bottom.

Ventilation systems are never automatic—all must be controlled. There are essentials for any system—good insulation, well-filled stable to make it warm, provision for intake and distribution of air, provision for outlet in considerable volume and with current enough to discharge moisture. A system found to give good satisfaction generally is in principle known as the Rutherford system. The air is admitted near the floor, through 8 x 6-inch shaped flues, which are controlled by little traps. For outlets

it seems best to arrange quite large flues and run them through to the roof and well above it. In the stable for 66 cows two large ones were installed, 3 feet by 2 feet 6 inches. These are well insulated, double-sheeted and papered all the way up, and on the top of the roof are placed revolving hoods, or cowls, to face with the wind, to insure greater efficiency, especially on days when there will be the minimum current. These chutes go through the loft, but do not interfere with horse fork, because at the top they are divided and hinged, and can be opened up in time of filling loft. This system has been criticised for being extravagant in heat, but it makes use of every agency for air current, and can be controlled; and in any stable, and for any system the first provision should be a margin of heat to work on.

H. BARTON.

Macdonald College, Que.

Ever and anon complaint is heard that governments are not doing enough to push the beef industry, or the sheep industry, or the bee industry, or some other particular line. It does not seem to occur to the complainants' minds that, as a rule, the best thing the government can do to increase profits in a certain line of agricultural production is to boost others. Turning the attention of ten thousand farmers from beef raising to dairying tends to reduce production of beef and raise the price of it. With some partial and minor exceptions, the principle will hold that when the government pushes a certain branch of agriculture, those engaged in other lines should congratulate themselves.

THE DAIRY.

Fertilizer-Facts.

Editor "The Farmer's Advocate":

I was very much interested in reading the account of co-operative experiments in agriculture in your issue of Jan. 16th, especially that part—"Some good results from fertilizers," and the experiment with barley. It seems to me, however, that the case in favor of complete fertilizers is very much understated. In the first place I find no trouble in buying fertilizers at a smaller price than the figures given in the account of the experiment. Then I never would think of compounding a fertilizer in the proportions given, which might be called a 5-8-10 compound, if it were for a grain crop on average soil. The ammonia and potash are both in excess of what would invariably be used in a cereal crop, and by using less ammonia and potash the cost would be reduced, and I venture to say that the results would be as good, since it is the factor in minimum that limits the crop. Then again, from the standpoint of a fruit grower, the price of manure is very much understated. We have to buy manure from the stockyards, and after paying freight, haulage, etc., we cannot figure it much under \$2.00 per ton.

Were it not that we have to use either manure or cover crop to maintain soil conditions, we would never use the manure. I am glad to be able to say, after visiting a number of orchards in this district, that quite a number are now growing cover crops, and using commercial fertilizer to supplement it. More and more we are realizing that if we want to keep up an orchard we must fertilize, and if more would use cover crop we would accomplish two things, we would not only get our soil condition and in some cases our nitrogen cheaper, but would, at the same time, lessen the demand for manure from the stockyards, and get it at a lower price.

Too many, however, are still acting as if it were doubtful whether commercial fertilizers were any good, and only try a small quantity as an experiment. They do not seem to be aware that these have been used for years in other lands, and that it is through their use in older lands that larger crops are being grown than we are growing here in what is comparatively a virgin soil. Have we not been following the foolish practice of continually trying to take from without also adding to and expecting the sum total to remain the same? We have had, and still have a great heritage in Canada, but too many of us are acting the part of the Prodigal Son, and squandering it as fast as we can. Most of us have learned that in raising stock good feeding pays, and if we would only recognize plants and trees as living things that must be fed and watered, we would supply the food and so cultivate as to retain the soil moisture with, I am sure, most gratifying results.

Lincoln Co., Ont.

PETER BERTRAM.

Likes the Return-Apron Spreader.

Editor "The Farmer's Advocate":

I find "The Farmer's Advocate" a valuable farm paper. Have taken it nearly a year and can readily refer to any copy, as they come in book form and are easily bound in their order.

I've a word to say concerning the manure spreader that might be of value to the intending purchaser. Have used both endless and return aprons, and find the latter the most satisfactory. The return apron has an end or dash-board which follows the load back when being spread. This board holds the manure close to the beater until the last is out of the box and the entire load is evenly spread. It is then an easy matter to shift a lever and let the horses bring the apron back ready for another load. With the endless apron there is nothing to hold the manure up to the beater; consequently the last few bushels of the load, instead of being spread with the same evenness as the other, will keep rolling back from the beater on the apron. The result is, you have put very little manure on the last four or five rods spread, or you take back two or three bushels to the barnyard every time.

Kent Co., Ont.

T. L. DALY.

Investigations conducted for a number of years by F. T. Shutt, Dominion Chemist, have led him to the conclusion that a rapid development and maturing of the seed tends to produce a grain of high protein content and excellent milling quality.

Building Fire Places.

I wish to build a fireplace in my house, but have had no experience in building them. Could you give me directions for the construction of one. The difficulty most people have out here is to build them so that they will not smoke. We have brick and stone masons here, but they do not seem to know how to overcome this difficulty either.

I have had many problems solved through your Questions and Answers column, but have never seen this subject treated. If you could answer this through your paper I should be very much obliged, and I am sure other readers could also use the information to advantage.

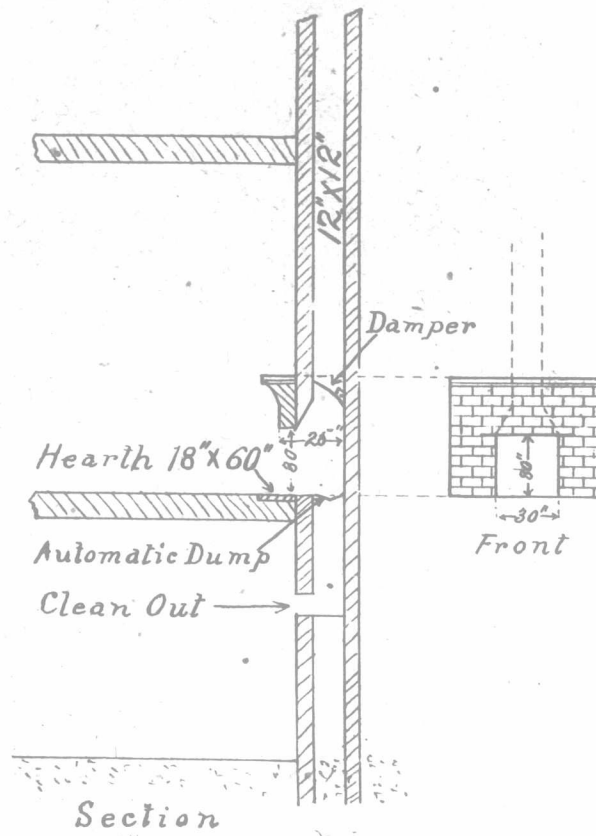


Diagram of Fireplace.

Ans.—When a fireplace smokes it is through lack of draught, and this results either from the chimney being too small or the wrong shape. Too large an open front or too small a passage between the fireplace and the flue would also have the same effect. The chimney flue should be large and square; 12 inches by 12 inches will not be too large for your climate in British Columbia. The accompanying cut will give an idea of the most desirable dimensions, and the various attachments and conveniences in connection with a good fireplace. Just above the opening the front is frequently arched instead of being built with a plate and flat brick work as shown in the drawing. The fireplace shown is the proper shape for a "basket grate," or the old-fashioned andirons. In case a "fixed grate" is to be used the back wall of the recess should begin farther forward, so that the grate, when fixed in place, would come well forward in the recess. In this case the back wall should slope backward and upward, but not so as to obstruct the entrance to the flue—this should be full size, 12 inches by 12 inches. To have an opening into the flue only 3 or 4 inches wide would be a fatal mistake. When starting the fire (it is at this time the smoke is worst) open the damper so as to leave the flue wide open. When the fire is rightly going, close the larger port of the damper, leaving the smaller port open as far as necessary to give sufficient draft to avoid smoking.

Cedar Block Flooring.

Editor "The Farmer's Advocate":

In reply to the Editor's requests for experience, I would say that I do not think much of cedar-block flooring, I am quite sure that cement is just as cheap, and can be put in in less time. True, cedar blocks are not so slippery as cement. We had a number of cedar-block floors in our neighborhood, but they have all been pulled out, and replaced with cement, which is much nicer to keep clean, and you are not troubled with the fork sticking into the blocks when cleaning out the stable. It is impossible to lay cedar blocks so that the urine and manure will not work down between them, and any farmer can easily guess what a sweet smelling stable that would mean.

One man had four horses which went blind, and he thought the foul odor from the block floor was the cause of it, and another neighbor had three and I had one; it might not affect cows the same, but I do not think that any farmer can put in a cheaper or cleaner

floor than cement, and it will last a life-time. The price of cedar required to put in the block floor would probably pay for the cement. Simcoe Co., Ont.

J. W. M.

[Note.—Whether the cedar had anything to do with the blindness of the horses seems doubtful, but its other disadvantages, as compared with cement, commend the latter material.—Editor.]

Further Details of Mr. Jewell's Barn.

Editor "The Farmer's Advocate":

With reference to our barn plan (W. E. Jewell) I might say the ventilation was overlooked. For ventilation we have eight 3-inch tile, sawed twice, making three short tile out of one. Placed in hollow blocks when making, put in the outside second block from foundation and on inside top block these, together with feed chutes, over feed room, making fairly good ventilation. The walls and ceiling are never damp, excepting in a very long period of extreme cold weather.

The foundation of cattle mangers are made of cement, put down to hard pan, which acts as foundation for centre supports.

In plan there was a door omitted at west end behind cattle, through which all manure from horses and cattle passes, keeping the main yard clean at all times.

There are three large windows on west side of horse barn, one on south, and three on east. There are three doors east of horse barn, one south of box-stall. One window omitted in separator room. Two on north side of pig-pens.

Water is pumped by a windmill to a tank over horse barn, there being two globe-valves behind horses—one to get water inside, another to run water into a tank outside. Water is piped along behind horses into main barn along feed passage as far as pig-pens. Water is also piped to the house, which the women find very convenient. I might say, in fairness to your representative, I was away and did not get home until he was nearly through with sketch, and it was a very stormy day. I am surprised he got as good a photo of the barn as he did.

Trusting these few suggestions will be of some benefit to any one copying plan.

Durham Co., Ont.

W. E. JEWELL.

Wants Advice on Manuring.

Having recently sold my small farm and bought a large one, I made up my mind that I should have a manure spreader. I have bought one, and now the problem is just when and on what crop to use it. I might state that I have always been a mechanic, but have gone back to the farm, and having never farmed it till too years ago I have a lot to learn.

Let me state my position, and perhaps some older farmers will give me their experience.

My new farm, of which I take possession on March 1st., is 350 acres, 200 acres work land, balance pasture. The land is good but has been abused, there are 40 acres fall-plowed, 60 acres old meadows, and the balance of work land, 100 acres we intend to use for peas, corn, buckwheat and rye. We have two years manure to use this spring.

An answer to the following would be a great benefit:—

1st.—Should manure be used before disking on spring grain, or would it be better to use it after the drill when grass seed is used, if so, before or after the roller?

2nd.—If manure is used before disking, would there be too much loss to spread it in the early spring whenever we can get a day with frost enough to carry spreader.

INQUISITIVE MECHANIC.

Have Soft Water.

Soft water is better than hard for all kinds of cleaning, washing dishes, woodwork, floors, and also for bodily ablutions. Who enjoys the harsh, sticky feeling of hands washed in hard water, to say nothing of chapping incident to its use in cold weather? The wash basin, the wash boiler, everything used with hard water, gives silent evidence of this characteristic, consuming time and requiring extra labor in scouring when simple washing alone would be necessary if soft water had been used. Cistern water is not best for the purposes of drinking and in preparing cooking, and it is not the intention of this article to recommend it, but simply to insist that in case but one can be had in the house, let that be soft.—Miss Juniata L. Shepperd.

Two bushels per acre is counted a good yield of alfalfa seed in Minnesota, according to a press bulletin issued from that State. Yields are on record there of ten bushels per acre, but such are very exceptional.

Seasonable Duties.

Editor "The Farmer's Advocate.":

Success in modern farming to-day depends very largely upon intelligent and persistent attention to details. Many farmers overlook what they call the trifling matters, and this negligence is, in no small measure, responsible for the haphazard style of farming.

Many farmers call this a very slack time of the year, and so it is compared with the harvest and seeding seasons. Yet there is much to do. We have so far had a very mild winter in this section, which has afforded an excellent opportunity for getting the season's wood cut. Yet, if you will note, the majority have their wood to cut yet, and would rather wait till spring when the sap begins to flow and the saw cuts faster, and some, when they cut their wood, pile it under a big tree where it is entirely barred from the sun, and yet they expect first-class wood for next summer. This is a mistake that no intelligent farmer ought to make. Wood to be properly dried must have the full benefit of the sun. Another matter that may be requiring attention just now is the condition of the winter quarters for the stock. Treat the stock for lice or any other disease immediately after you have noticed same. Foul odors, draughts, lack of light, and insanitary conditions of any kind, all have a tendency to lower the credit side of the accounts. It might be well to impress the fact that horses that have been idle all winter will not be in good shape for the spring work. Give your horses work during the winter months, and they will be in better condition for the spring work.

There are many matters that need attention before spring, and now is the proper time to attend to them. Is your harness in good shape for the spring work? Look it over and have the broken or weak parts mended, and give it a good oiling. Perhaps some of the machinery may need repairing. Are the harrow points sharp, if not, why not have them sharpened now, and thus avoid waste of time and worry later on when time is so precious? Have you given any attention to the crop rotations yet? Give the unproductive parts a good coat of manure, and try to make them add a goodly profit to your income this year. Devote the different fields to grains that you know will prove profitable in their favorite soil, and keep in mind the old saying that we reap in accordance to the amount of skill we exercise in sowing.

Now that the wheel of time has made one more revolution, and we have entered upon another year, let every agriculturist strive to make 1913 surpass all previous years, both financially and mentally. I wish your paper a happy and prosperous New Year.

Halton Co., Ont. RUSSELL LINN.

Corn and Alfalfa Silage.

Editor "The Farmer's Advocate.":

On account of the wire worm eating out more than half of the corn, and the very unfavorable season for making hay, I decided to put the third cutting on fifteen acres of alfalfa in my silo along with what corn we had. We cut the alfalfa, some of it one and some two days before we filled silo and raked it as soon as possible to prevent it from drying too much. Then when we filled we put in load about with the corn and two of us in the silo mixed and tramped it as well as we could. On the top of this mixture we put 8 loads of pure corn. We did this in order to put more weight on top to press it down and this made it air-tight. We then put three loads of alfalfa on top of this and these three loads spoiled completely right down to the corn. We are now feeding the mixture with splendid results and while I do not think it is just as good as first class corn silage that is well cobbled, still I would much prefer it to corn that was not well matured or even corn that was not well cobbled, and it has kept splendidly. None of it mildewed and is good right to the edge of silo.

Middlesex Co., Ont. WALTER W. BOWLEY.

Alfalfa and Corn Silage.

Editor "The Farmer's Advocate.":

In reply to your enquiry regarding the alfalfa we put in the silo mixed with corn, our farmer informs me that it turned out very well. The cows eat it with relish and it seems to be much more valuable food than similar alfalfa that was not well cured owing to the wet season. He thinks if he had mixed it more thoroughly with the corn when putting it into the silo it would have been still better.

In regard to the dairy herd, I might say that the first crop of heifers of our own breeding are just coming in and those which have calved are doing splendidly.

W. J. ROBINSON, Medical Superintendent.

The Maple Tree and Its Products.

Editor "The Farmer's Advocate.":

"Sap's runnin'!"

Does that exclamation mean anything to you? Does it stir your blood with a new impetuous surge? Does it make your mouth water for a taste of that which your memory refuses to forget? Does it bring back to you a memory of springtimes long-ago, of boyhood days, and last, but not least, the old home?

If it does, if it has memories for you, it is quite possible that you are a Canadian, or at least you hail from the North and Eastern States such as Ohio, and New York, where the maple is queen of the forest. If the expression has no meaning to you, you have lost or missed something that cannot be replaced except by actual experience.

Years ago Canada adopted the maple and took it as its own. It has been woven into songs and stories until, like the beaver, it has become a thing of national respect. In the Eastern provinces it reigns supreme. Perfect in its haughtiness, usefulness and grandeur. Away out West we find it changed, but still the maple. Always holding its own as an emblem of freedom and free-heartedness.

There are many different classes of maple, but the one that is engraven deepest in our hearts is the "hard maple," the maple that produces the sap, syrup, sugar and taffy, any one of which surpasses any manufactured or imitation article to such an extent that they fade away into insignificance. But let us begin at the beginning, or this story will lack spice and completeness.

It is springtime, the snow is leaving the ground and the sun is again warming up old

What a time there is—the horses drag the stone-boat from tree to tree, and the sweetish fluid is dumped into the milk cans and drawn to the camp. A big fire is roaring in the old brick furnace, and in no time the sap is boiling in the great pan, over the fireplace. How the steam rises and falls in great clouds over everything and escapes through the holes in the log walls and patched roof. Possibly you tend the fire and keep the pan full of sap, as it boils away. If you do, you have a job that requires work and skill, as no fire will burn if not attended to properly, and that is the secret of the whole thing—no fire, no syrup.

It takes hours and hours to bring the sap to syrup, but it is accomplished at last, and it is with a sigh of relief that you empty the pan; but, alas, to begin all over again, as more sap has accumulated in an almost miraculous abundance.

Night comes, but still the kettle boils. Usually a big fire is built and the treasure is left to boil and boil away, but sometimes in big runs or on warm nights you or someone must stay overnight and keep things going. Have you ever stayed in the woods over night, alone or otherwise? Let us say that you have a couple of friends stay with you. The first part of the night passes, and perhaps you have a sugar-off or a taffy pull, extremely woody, but at the same with a flavor all its own. The fun over, you build a good fire and roll in to snatch a moment's sleep. It quiets down, and away off in the distance an owl sets up his mournful cry; closer at hand a racoon whistles his wail; right near you a wood mouse gnaws at some bit of your abandoned lunch. How strange it all is, and a creepy, smallish feeling steals slowly over

and you lose yourself in thought, possibly not to awaken until the grey morning light begins to lighten the deep woods.

What of the toy! Has he lost interest in these operations? What is that smoke over among that bunch of cedar and scrub pine? Surely it cannot be another camp? As you approach, you hear the same noisy wood-cutting as at the camp—the same pungent, smoky, steamy smell greets your nostrils, but it is not until you peek into the little bare space among the trees that you find what is really going on.

Slung over a pole, supported by two notched sticks, is a pot completely surrounded by a crackling fire and brimming full of

hot, thick syrup or taffy. As you watch, the boy sticks a smooth, round stick into the pot, stirs it around slowly, and then carefully raises it out in a horizontal position, with a big bunch of taffy on the end.

After carefully waving it in the air for a time, he attacks it after the manner a sight-seer uses an ear of corn, and it is quite likely that if you hurry forward, he will present you with an equally delicious and dirty stick, which with careful handling, should provide ample labor and recreation for at least two days.

Possibly the crowning feat of all, is often the crude syrup has been treated or purified at the house, and you give a taffy-pull for the benefit of your friends who are not as lucky as yourself, and to provide a little healthy recreation.

We will say that you are eighteen and that you invite all your girl and boy friends who are near that wonderful age—eighteen. You play games that are equally wonderful and amusing. You have a time such as can be had in no other way, at no other time in life, and that has no equal in any manner whatever. The taffy-pull itself is wonderfully exciting. There is something very pleasing about pulling a piece of tough taffy with your teeth, especially if your competitor is a girl, as it usually is.

At last it is all over, and, with expressions of thanks and good-byes, they all leave for their homes, leaving you with a tired feeling of gladness that is all your own. Morning comes and you wonder why you have such a headache and have lost your taste for maple syrup, taffy, or anything of the kind. But as the day wears on, you quite agree with the song that ended the



An Attractive Country Home.

Residence of R. C. Twiss, Ekfrid Township, Middlesex Co., Ont. House built 1910, at a cost of \$8,000. Hot water, bath, and closet.

Mother Earth. Slowly but surely she tingles the tiny buds of the maple, and one by one they send down their call for more life-blood. Gradually, as the tree becomes thawed, the roots respond, and the life-giving fluid rises to its duty. It is then that the watchful boy investigates the woods and that unrivaled cry breaks the stillness of the house, "Sap's runnin'!"

Usually his announcement is greeted with more or less stolid indifference, as though the news were generally known, and really made no particular difference anyway. But, all the same, buckets and pans and pails and cans are gathered and industriously scrubbed. The camp in the woods is repaired, the fireplace chinked up, fuel cut, and a hundred and one other things attended to.

At last, when it has become warm enough and the air has that early-spring smell, the last operation is performed. The trees are tapped! It takes an expert to do this rightly. The novice cannot tell the really best place in which to bore the hole that is to bring the magical fluid. Sometimes the south side of the tree is taken, and yet again the east, and sometimes the north, but not often. Into the hole is driven the spile—not the old-fashioned bit of wood or tin—but a piece of metal made purposely for this important operation, the drawing of the sap. Once the spile is driven, it is quite easy and dignified to hold your mouth below the spile and catch the drops. How sweet they are, those first drops! You who have tried it know and long for another opportunity.

At last the trees are all tapped, and the first ones which were treated have filled their buckets.

night before and settle down till next spring. Oh, the Land of the Maple is the land for me; The home of the stalwart, the brave and the free; The rose and the thistle, the shamrock and lily, All bloom in one garden, 'neath the Maple Tree. Elgin Co., Ont. J. C. INMAN.

Rural Social Life.

Editor "The Farmer's Advocate":

I have been much interested in the stand you have taken for better schools and a change in educational methods as a means of keeping the boys and girls on the farm, and there is much room for improvement along these lines. The school-house in my own section is a disgrace to us. It has stood as it is for many years—a plain, barn-like building, until at last it seems to be falling down; while just opposite are a number of fine residences, almost close enough together to look like a city street.

I think, however, there is much needed in addition to better schools and improved methods of teaching to stem the constant movement to the city, and the solution of the problem is not an easy one. I heard the other day of a young girl, daughter of a farmer near here, who recently completed a commercial course of study and is now getting ten dollars a week in a neighboring city, and I wondered what inducement would be required to keep her at home.

I was brought up on a farm, have lived many years in the city, and am now back on the farm, and I am convinced that it is the human fellowship, the association with others of kindred spirit that is the strongest magnet for drawing our young people to the city. Why could not something be done to promote a more frequent meeting together in the country?

The movement for good roads is in the right direction. Let us help it on all we can. It is not merely a few good roads we want, but make all the roads good. It will take time and money, but let a beginning be made in every section, free from all local jealousy as to where they start.

Let our schools be not only improved for those of school age, but also as meeting places for those who have passed the school age. Why could we not have them equipped something like the Y.M.C.A. buildings in our towns and cities, with halls for entertainments, gymnasiums and ample play-grounds? They get up whirlwind campaigns to raise money for such things in the city. Are not the needs in the country just as great? A library, too, should be in every school, not only for the use of the scholars, but for the whole section, young and old. Some of the wealth of the Province in mines and timber would be well spent in aiding such things. Then our girls and boys who stay at home and work on the farm should be paid a regular salary for the work they do. I know the expenses on the farm come perilously near the income, but I am looking to the movement for bringing producer and consumer more closely together to increase that income and enable us to pay for our help more nearly what can be got in the city. More intensive farming will help, too, in this direction. We must produce more per acre by better cultivation and better fertilization. When I read the bank reports, and see how much the business they do is made possible by the depositor who places his money there at a low rate of interest, I sometimes wonder if farmers at any rate would not do better to invest that money in the farm. It would surely yield more than current rates of bank interest.

The churches, too, must help. In the city the churches do much to bring young people together and old ones, too. More and more they are becoming centres of social service. Our country churches may have to adopt different methods, but ought to be able to help in the good work. Life is too monotonous in many sections of the country, especially in winter; and, while I have no sympathy for the extreme craze for amusement and excitement in the city, I do think healthy recreation is helpful for young people.

Details, however, may differ in different localities. The main thing is that we recognize the problem as a serious one, and get together to think out and plan what is best. The Women's Institute might become the rallying point to start with. I hope you will continue the good work, and would be pleased to see your paper in every farmer's home—it is clean and healthy, and has something interesting for young and old.

PETER BERTRAM.

Your excellent paper, I can truthfully say is a long way ahead of any other farm paper I have read, either in the Old Country or this. Prince Edward Island. R. METCALFE.

Making Maple Syrup on a Small Scale.

Editor "The Farmer's Advocate":

Most farmers do not make any more maple syrup than what they want for their own use, and consequently stick to the old kettle, not having enough time or trees to keep an evaporator going. I am going to describe the way I boil sap and how the apparatus is made. It is necessary to do the work under cover. I boil mine in an old pump house, and I think it answers about as well as any other building for the purpose. The apparatus is made of a sheet of galvanized iron eight feet long and three feet wide, with six inches turned up on each side and end. The corners are then soldered, thus making a large water-tight pan seven feet long and six inches deep. For supports, strips of track iron (such as you would hang a sliding door on) eight feet long are fastened along the top at each side with short stove bolts, leaving six inches over at each end for handles. Then shorter strips of the same material are fastened on in the same way across the ends, making a strong water-tight pan. The material was bought at a hardware and manufactured by his tinsmith for the small sum of two dollars and eighty cents.

The next thing necessary is a fireplace inside the building. This is made of stones, but instead of using lime for mortar, clay serves just as well, and fully better, but be sure to mix the clay with salt before putting it in, so as to make it fire-proof. (A pail of clay mixed with a pint of salt is the rule.) Bank the outside of the fireplace well back with clay, so as to keep all the heat where it is wanted. Then put a seven or eight-inch tile at the end for the smoke to escape, and cover it with clay level with the fireplace. Then some old pipes are fastened from this tile up as high as the ridgeboard on the outside of the shanty. Four strips of iron (old sleigh shoeing is as good as anything) are laid across the fireplace to support the pan. The pan is now set on and a row of bricks laid around three sides of it to keep the smoke from coming out of the sides of the pan. A tin door is now hung by means of a wire fastened in the door and twisted so as to catch on the top of the pan. It is now ready for operation. The wood is cut from two to three feet long. Dry hemlock trees make excellent wood if they can be had. By putting the fire at one end and hanging the door, there can be no other exit for the flames and smoke. Both ways have been tried (putting the fire all the way across and at one end), and the latter is the easier and better method of the two. I always keep a couple of molasses barrels in the shanty in which to store sap, so as to have a fair-sized boil each time, though not so often.

I have had this pan four years, and tap from fifty to sixty medium-sized trees each year. It works O.K., but I think it would work much better if I had a few more trees. The only fault it has is that in case of a small boil, it is hard to get it down to good syrup without burning the bottom of the pan. However, it more than cancels this fault when the wood is considered. It uses about half the wood that the kettle used, and makes just as good or better syrup.

JOHNNY COPE.

Mixed Crops in Silo.

We silaged a mixture of corn and millet at the Provincial Prison Farm, Guelph, and a mixture of corn, millet and alfalfa at the Hospital for the Insane Farm, Hamilton.

The mixture silaged perfectly, and was readily eaten by the cows. The millet was not so palatable as the corn. This was due, in part, to the millet being frozen before it was put in, which dried it so much more than it dried the corn. The corn and alfalfa mixture at Hamilton kept perfectly, and appeared to be relished well by the cows.

S. E. TODD.
Director of Farms.

A Silo Filled in January.

Editor "The Farmer's Advocate":

I noticed an item in Jan. 23rd about filling a silo in January. We know of one that was refilled in January a number of years ago. It turned out good feed and the result was quite satisfactory.

Some in our neighborhood, when they have an over-plus of corn get it into the silo by putting a piece of chicken netting sometimes six-foot high and fill that and it settles into silo and so is saved from the exposure of the weather and from the inconvenience of getting it out of the snow, as all corn should be in out of the field and fed or into silo before January, in the Northern counties at least.

Where silos are roofed, the netting cannot be used. This is one advantage of the roofless silo

although a roof is a good thing in many ways. Huron Co., Ont. R. C. MCGOWAN.

[Note.—The use of netting as described is all right, but where the silo has a roof it may be blown full of cut corn. The roof on our silo would contain nearly as much corn as a five-foot band of netting would hold.—Editor.]

THE DAIRY.

Clean Milking and Clean Milk.

A well known Canadian dairy expert who happened recently to be the guest of a certain hotel in an Ontario city of over twenty thousand people, tells us that the milk supplied on the table showed from a saltspoonful to a teaspoonful of black sediment in the bottom of a single glass. Protest to the waitress elicited the information that they had been trying to secure a better supply without success, and had been unable to get their own milkman to improve. Think of the abominably filthy conditions which must obtain in the stable where that milk was produced! And think of babies required to depend upon such milk as their main or only food supply.

Conditions of the milk business in that city must be exceptionally bad. Most of the milk and cream sent to our cheese factories and creameries is vastly better than this city's retail supply. But in nearly all cases there is plenty of room for improvement. European travellers tell of visiting dairy after dairy in Germany, Holland and other countries, where the cows are kept in stables either under the same roof as the dwelling or immediately adjoining, and finding the stables so clean and sanitary that they do not prove, in any sense, a nuisance to the house occupants. Instead of keeping their houses like stables they keep their stables as clean and attractive as houses, which is as it ought to be. Whitewash, absorbents and close attention render the stables clean, sanitary and inviting.

In America we have, through generations of carelessness, become case-hardened to stable insanitation, carelessness and filth. Instead of realizing that milk is, of all foods, the most susceptible to bacterial contamination, and therefore needs the strictest care in drawing, handling and preservation, we have come to tolerate methods which would horrify the house-wife if applied to her bread, fruit, vegetables and other susceptible foods. What self-respecting house-keeper would consent to have the fruit from which she makes her jams and jellies, or the dough from which she bakes her bread, set in a pail under a dirty, unclean cow, swishing excrement, straw and dust into the pail with every swing of her dirty tail? Yet this would not be half so harmful to jelly or bread as it is to milk. Cooking or baking would destroy the bacteria introduced into fruit or dough, but not so with milk, except, of course, that portion promptly used for baking. The long and short of it is that we shall never have a thoroughly satisfactory milk supply until we recognize that dwelling-house standards of sanitation should prevail also in stables. How far we are still from such an idea!

Many of our dairymen are making progress towards it, however, thanks, in some cases, to their own initiative, and in others to the pressure of city milk inspection, but too many stables are still like one we were in not three months ago. This dairy is producing milk for city retail trade, and here is what we saw: Over forty cows were stanchioned in a dark, unwhitewashed stable with defective floors, low ceilings, and no provision for systematic ventilation. The square gutters were narrow, and the total distance from drop to rear wall not over four feet. The floors were wet, greasy, and innocent of litter or absorbents of any kind. Hardly a wisp of bedding was to be seen under the cattle, whose hips and flanks were, in many cases, coated with manure. Pigs and chickens ran around among the cattle, and some of the hens roosted on the stanchions. Outside the stable was a slough of mud. The milkers' hands looked as though they might have been washed last fall. They were simply black with grease and dirt of all kinds. They would be cleaner, though, after milking was finished, for we saw the men wet their hands by dipping them into the pail. Some of the cows were ill-conditioned, and looked as though they might have been tuberculous. The average yield per cow, counting only those in milk, of which quite a few were fresh-milch, was only fifteen or sixteen pounds per day. Certainly the municipal milk inspector in that district was not doing his duty. It was with some degree of personal satisfaction that we contrasted stable conditions at this farm and Weldwood. The latter are by no means perfect. We are not producing certified milk or anything of that kind. We are just trying to produce reasonably clean milk under sani-

tary conditions, and have been gradually improving those conditions point by point. There is room for further improvement, but this is how we are doing things at present:

Healthy, well-nourished, but not highly fed cows are kept in a cement-floored stable, the walls of which have been lately whitewashed with a brush. We try to keep the air fairly pure, not minding if it freezes in the stable occasionally. The stable is cleaned twice a day with litter carriers, and while bedding is not so abundant as we could wish, we make it a point to keep some under the cows, and usually strew a forkful along in the gutter to keep the tails out of the urine. A couple of buckets of sawdust or coal ashes are scattered along in the gutter each time after cleaning. This saves liquid manure, improves appearances, and helps to keep down odors. One end of the stable is not light enough at present, but will be when the horse stable is removed to new quarters, the present one being then torn out, allowing the south sun to flood clear across the cattle stable. Aprons laundered once a week are regularly worn. They keep out of the milk any dust and loose dirt which may be on the milkers' clothes, and incidentally protect the latter from spattering milk. Before every milking the cow's udder and flanks are first brushed off. Then the udders are dampened with a moist cloth wrung out of clean water in a wash basin kept for that purpose, the milker's hands being at the same time hastily rinsed off. A towel hangs beside the wash basin. The milk is at once strained into cans, which are promptly set into a tank of cold water in the dairy. Every cow's milk is weighed, of course, and marked down twice a day.

The precautions mentioned take a little time, but not very much, not over half an hour or an hour per day at the outside. They improve the appearance of a stable, make for the production of a wholesome product, increase the dairyman's pride and self respect, and are really nothing more than ordinary decency and cleanliness demanded. There are thousands of dairies where methods much stricter and more elaborate than ours prevail, but these, as a rule, are devoted to the production of certified milk, retailing at a minimum in price. The methods described above do not very materially increase cost of production, though they undoubtedly tend to improve the quality of the product.

Dairying Dramatic Enough.

Editor "The Farmer's Advocate.":

I have just read with interest and approval your satirically humorous editorial "Dean's Dairy Drama." Its suggested nomely common sense appeals to anyone engaged in any branch of dairying. The dairymen of Canada do not require moving pictures or stage and stage equipment to have impressed on them the lessons of success or failure in dairy production. The encouragement of steady, profitable markets for milk products, easily accessible or, if distant, with the barriers to transportation reduced to a minimum, will, more than anything else, give the dairymen a part in a drama that will make the great audience of consumers think the entertainers are enjoying what they are putting on the stage. It does not require a millionaire with sensational productions of moving pictures, etc., to produce up-to-date and satisfied dairymen, but, as you say in "Cows, prices and profits," efforts to improve quality and increase individual production backed up by remunerative prices for products. I remember in the early nineties, 1890-94, dairying advancing very rapidly in production, a decline in cheese to 6½ cents and butter to 12½ cents, and a slump from dairying, in this district at least, just as fast as it was possible to accomplish it, when in 1897 the removal of the U. S. quarantine made the stock market profitable.

If the fellows who have cheese and butter to sell, and profit by the manufacture of increased quantities, can furnish the kind of labor for the dairyman that used to make dairy farming possible on a larger scale than it is to-day, and the dairyman with this help fails to produce more largely, then ground for harsher criticism will exist. To increase the number of cows as well as their quality and productiveness, with the present very unsatisfactory labor available for dairy farms, is to reduce the farmer and his family to a sort of organized slavery, at which his family, at least, rebels. It is easy from the platform of dairy conventions and elsewhere to advocate more cows; it is another matter to get farmers to take that view when other tranches of farm work are equally remunerative.

Middlesex Co., Ont.

C. M. MAC F.

Too many farmers are still keeping the scrub cow, feeding and milking her twice each day, 14 times a week, 60 times a month and 600 times a year, merely for the pleasure of the task. Does it pay?

What is Cheese ?

Paper delivered by Prof. R. Harcourt, Ontario Agricultural College, before the Western Ontario Dairy-men's Association, January, 1913.

Cheese is believed to be one of the oldest dairy products and possibly the first form in which milk was preserved for future use. It appears to have been known during the time of King David, 1,000 years before Christ. The ancient Greeks speak of it, and Caesar tells of the preparation of cheese among the people of Central Europe. These historical facts are interesting in that they show that cheese, like bread and

nature, and then, by means of salt and by controlling temperatures during the making and ripening periods, the matured product is formed. Naturally, when there is a variation in the controlling factors, that is, in the amount of salt or in temperature, there will be differences in the nature of the product, and these differences not only affect the texture, but more especially the flavor and aroma. Apparently, these differences are caused by the nature of the micro-organisms, which are able to grow best under the existing conditions. Thus it will be seen why from three such common substances as milk, salt and rennet, it is possible to make such an innumerable

variety of cheese as is found on the market to-day; and, furthermore, why it is absolutely necessary that the cheese-maker have full control of the conditions under which the ripening takes place, if he is to get a uniform product.

But it is not to this aspect of cheese that I want to draw your attention, but, rather, to its food value. Cheeses are of two classes: those which are mild in flavor, and those which are seasoned or ripened in such a way that they are highly flavored. The latter, like almost all highly flavored foods, are commonly used to season dishes made of ingredients without much distinctive flavor, or else are used in small quantities at a time to give palatability to

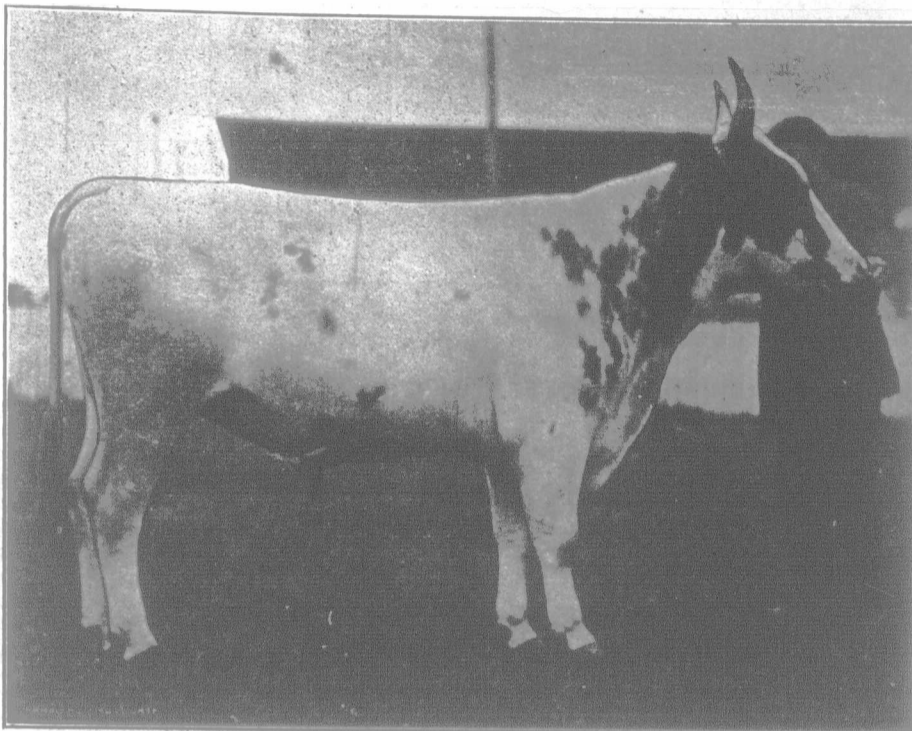
the ones which are usually selected for eating in quantity, and are the ones which may be most appropriately selected when cheese is to be used as a substitute for meat. Our common mild-flavored cheese is the cheddar or factory cheese which is made in such large quantities throughout this province and other provinces as to be commonly called Canadian cheese.

From the standpoint of the housekeeper, cheese is of importance because of its high nutritive value, particularly its high percentage of protein or muscle-forming materials, because of the ease with which it can be kept and prepared for the table, and because of its appetizing flavor and of the great variety of ways in which it can be served.

To show its high nutritive value it is only necessary to point out that one pound of good Canadian cheese contains nearly all the protein and fat in one gallon of milk. Approximately, it is made up of one-third water, one-third fat, one-quarter protein, and smaller quantities of ash, or bone-forming materials, salt, etc. Beef contains over 50 per cent. of water, and the leaner it is the higher will be the water content. Thus, beef has a much lower nutritive value than

cheese, and the same statement holds good with practically all forms of meats, and more especially with the expensive cuts and the cured and cooked meats.

Unfortunately, there is rather a widespread belief that cheese should be used chiefly in small quantities as a condiment, and that in large quantities it is likely to produce physiological disturbances. The idea has been advanced that the infiltration of casein with fat renders it difficult of digestion, since the fat hinders the access of the digestive juices to the casein. Such reason-



Whitehall King of Hearts.

Ayrshire bull; first and champion at Sherbrooke, 1911; first at Sherbrooke, 1912, and first and champion at Quebec, 1912. Owned by D. M. Watt, St. Louis, Que.

milk, was one of the earliest foods of man, and that its preparation and use has been continued down through the ages.

Like many other of our common foods, cheese is very complex in its composition and, while we are familiar with its general character and know something about the amount of protein and fat it contains, we know very little about the make-up of these materials as they occur in well ripened cheese. Until recent years cheese-making has not been classed as a fermentation industry, but now we know that it is one of the most complex of these industries. At the making of wine and beer the desired changes are brought



Brierly of Springbank.

Champion Ayrshire in the dairy test at Ottawa Winter Fair. Exhibited by A. S. Turner & Sons, Ryckman's Corners, Ont.

about by a single form of life, the true yeast, and in the preparation of any desired type of product attention need be directed, as far as the causal organism is concerned, only to insure the presence of the particular variety of yeast that has been found by experience to give the desired results, and to prevent the action of any harmful forms. On the other hand, the cheese-maker has to deal with a complex material, milk, which for various reasons, cannot be sterilized, and is peculiarly susceptible to contamination. To this is added rennet, also complex in its

ing offers a probable ground for the belief that cheese should be thoroughly chewed before it is swallowed.

The disagreeable effects, such as a burning sensation and other symptoms of indigestion which certain kinds of cheese sometimes produce in the stomach, is explained by Hutchinson (1) as being possibly due to the small quantity of free fatty acid that is produced during the ripening process. Such acids are irritating. If this be the true explanation, then it is evident that such irritating effects are more likely to occur from eating the strong cheeses used as condiments than from the milder cheese used as a staple article of diet.

Because of these opinions, extensive experiments have been carried out by the United States Department of Agriculture (2) in co-operation with the Wesleyan University, Middletown, Conn., and with the Minnesota State Experiment Station, to ascertain by actual trials what proportion of the cheese was digested, and what effect it had in the system when eaten in large quantities.

The work at Middletown was planned to include green and ripe cheese. The cheese was made by the regular cheddar process, and would be similar to a very large part of the cheese consumed in this country. The ripening was carried on under different conditions. One lot was ripened under factory conditions where the temperature varied from 50 degrees to 75 degrees F. Two lots were stored immediately after making, and one was kept at 32 degrees F. and the other at 40 degrees F. Another lot was held in the factory curing room for two weeks, and then placed at a temperature of 40 degrees F. All these methods of controlling the ripening process were carried out with cheese made with three ounces of rennet to the thousand pounds of milk, and with six ounces to the thousand pounds of milk.

The subjects of these experiments were students of the University. The diet consisted of whole wheat bread, bananas and cheese. Of the latter substances from 450 to 600 grams were eaten in the three days of the experiment, or about one-third to nearly one-half pound per day. The number of experiments completed was 184.

Without going into the details of the results, it may be stated that there was found to be little or no difference in the digestibility of the cheese at different stages of ripening. The perfectly green curd was evidently as digestible, and, so far as nutritive value was concerned, was as good as the same cheese at any stage of ripening. Furthermore, the cheese was highly digestible and, though it was eaten in comparatively large quantities, it was well assimilated. The record of the health of each individual shows that there was little or no digestive troubles, and that the green cheese caused no more trouble in this way than the ripened article.

The Minnesota experiments were planned to study the digestibility of older cheese than had been used in the Connecticut experiments, also the digestibility of other varieties of cheese, such as Roquefort, Swiss, Camembert and Cottage cheeses, as well as the so-called condimental value of some of the more highly flavored varieties. Bread, oranges and cheese formed the diet in these experiments.

In general, the results confirmed the previous work, and showed that all kinds of cheese, even the very high-flavored and so-called condimental cheeses, have a high food value. But the so-called condimental value of cheese, when eaten in small quantities as a stimulus, to the digestion of other foods was not demonstrated.

These extended experiments show that, on the average, 95 per cent. of the fat and over 95 per cent of the protein of the cheese was digested, and more than 90 per cent. of the total energy is available for the body. They also show that cheese may serve as the principal source of protein and fuel in the body for a long period of time.

A comparison of the food value of cheese with that of the other highly nitrogenous materials is of interest at this time. No kind of meat, except dried beef, carries such a large percentage of protein as cheese. Fresh beef as purchased has, weight for weight, a little more than half the food value of cheese in either protein or fat, and the same is true of practically all other meats. Bacon or fat pork are exceptions, but their food value is mostly in the fat, which can be and is replaced to a great extent by the carbohydrate of vegetables at a much less cost and sometimes, perhaps, with benefit to the health of the consumer. Or to put the matter another way, one pound of cheese has nearly the same food value as two pounds of fresh beef, or any other fresh meat as food; it is worth as much as or more

(1) Food and the Principles of Dietetics.
(2) The Digestibility of Cheese.—Circular 166, Bureau of Animal Industry, U. S. A.
than a pound of ham and it is more digestible, and it is equal to two pounds of eggs or three pounds of fish.

To place the matter in still another way, let us compare some of the more common foods on the basis of the weight of protein, fat and calories of heat that can be purchased for one dollar.

Protein, Fat, Carbohydrates and Fuel—Value of a Dollar's Worth of Each Food.

	Price per lb.	Protein, lbs.	Fat, lbs.	Carbohydrates, lbs.	Fuel Value, cal.
Milk.....	6c quart	1.38	1.60	2.31	13.809
" ".....	8c "	1.04	1.27	1.66	10.402
Skd. milk.....	10c gallon	3.40	0.30	5.10	17.070
Butter milk.....	10c "	3.00	0.50	4.80	17.632
Butter.....	25c lb.	0.04	3.40		14.422
Cheese.....	17c "	1.63	2.16	0.24	12.593
Beef, flank.....	8c "	2.12	2.37		13.944
" sirloin.....	18c "	0.92	0.90		5.509
Veal, cutlets.....	15c "	1.34	0.50		4.612
Mutton, chops.....	16c "	0.84	1.80		9.158
Lamb, hind, qtr.....	18c "	0.92	0.90		5.509
Ham, smoked.....	18c "	0.79	1.85		9.276
" smkd. & ckd.....	30c "	0.67	0.75		4.405
Eggs.....	25c dozen	0.71	0.56		3.853
White bread.....	2 1/2 lbs. 10c	2.10	0.50	12.2	28.710
Rolled oats.....	7 " 25c	3.50	1.90	20.0	51.730
Ferinas.....	6 " 25c	2.30	0.24	18.7	40.070
Potatoes.....	90c bag	2.18	0.10	15.6	33.492
Flour, (fall wheat).....	2c lb.	4.75	0.04	38.0	81.087
" ".....	2 1/2c lb.	3.80	0.03	30.4	64.868

In view of the foregoing comparison of food values it is a matter of surprises that there is not a greater demand for cheese. Estimates made by the United States Department of Agriculture show that the people of that country use about 175 pounds of meat annually per capita, besides fish and poultry, while the annual consumption of cheese is only about 4 pounds per capita. It is probable that if we had similar data gathered in this country the results would be about the same. Even granted that fresh meats are more palatable to most people, some other explanation must be found for this wide difference in the quantity of the two products eaten. A great proportion of the people of this country are able to buy plenty of wholesome food, but they cannot afford to discriminate against a cheap, palatable and wholesome food in favor of a higher-priced food.

The results of the experiments just cited and the experience of people of the European countries all show that we cannot discriminate against cheese because of any suspicion that it is not a healthful food, and we would do well to take a lesson from the people of the older countries and use greater quantities of cheese in our diet.

Cheese Prices in England.

During the past season, for a short while, many importers in Manchester were afraid that Canadian cheese would not average up as well in quality as during 1911, writes Canadian Trade Commissioner, W. J. Egan. Now that the season is practically over, the verdict, as rendered by the trade, is that, during 1912 Canadian cheese has reached a very high standard, and the quality is highly commended.

From an importer's point of view the present season was very disappointing.

In spite of the fact that there has been a decrease in shipments to Liverpool of 229,702 boxes, prices are, at the present moment, 6s. to 7s. lower than they were last year, and all the season it has been pretty much the same, very unprofitable. Our shortage in shipments has certainly had the effect of holding up prices, for had our shipments been up to former years, prices would have been much lower. The trade, in England, attribute weakness in cheese prices to the low prices at which New Zealand cheese has been offering for the winter delivery. New Zealand's output will greatly exceed last year, and, of course, their free selling weakens the market for Canadian cheese.

GARDEN & ORCHARD.

Three Grades Enough.

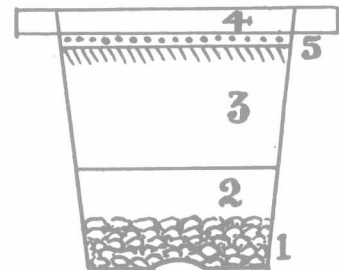
With very rare exceptions, which have been reported to the Department, the trade in Lancashire comment very highly on the Canadian fruit and packing this year. Particular reference is made throughout the trade to the packing of Nova Scotia apples. There have been much larger shipments this season from Nova Scotia of No. 3 grade than usual, and some company shipping from there have adopted a new system, adding to the grade No. 3 such words as "ordinary," "plain," "A," "B," "special," "large," "extra large." The brokers and wholesale dealers in connection with the salerooms here do not approve of this system, as it has the effect, they claim, of inducing certain people in the fruit trade to sell such fruit designated as No. 3 "extra large" as No. 1. This creates great dissatisfaction. On the other hand Nova Scotia has been shipping direct to firms who have no connection with the salerooms, and these people of

course approve of the system, as they say that for No. 3 of different grades they secure prices in proportion. As to results financially, the shipping trade of Nova Scotia will know best if it has been of advantage to make what is practically several grades in Canada's No. 3 apple. There is no doubt that, generally speaking, the system which has been in existence here for some time, of three grades only, viz., Nos. 1, 2 and 3, and to which the fruit trade here has been educated, would seem the best system.—W. J. Egan, Canadian Trade Commissioner in Manchester.

Seed Sowing.

Editor "The Farmer's Advocate.":

How to sow, what and when to sow, are questions that confront the horticulturist and all who love the garden, whether it be one of large dimensions or a very small plot. While it is a pleasure to know of the increasing value and beauty that a well-planned garden gives to the farmer, and this is being fully realized. I can see distinctly that to help along those who want to learn more about sowing, planting, raising flowers, etc., and improving the house surroundings generally, it is of much assistance that reading matter on the subject should appear at the right time, just about two weeks ahead. The success of seed raising should commence with "good" seed. Cheap stuff gives you as much labor, if not more. A poor, weakly plant takes up the same space, and is probably a menace to others. Another thing is that feeding your ground with artificial manure is a needless task if you allow weeds to grow and suck the substance of it. From the catalogues of seedsmen of our own Dominion, I have found them quite reliable. While my gardening experience has been chiefly in private estates, I have tested seeds



Pot Prepared for Sowing.

- 1, drainage; 2, rough soil or old manure; 3, fine soil;
- 5, seeds with covering of soil; 4, space for water.

from many a seed store and firm, from the fine seed of the Begonia to the potato. Summing up the whole question, I find the "sower" more at fault than the seedsmen, for bad germination, bad seed, and so on. I would not consider the seed trade altogether. However, we should consider whether we have done justice to the preparation of the seed-bed, pot, or box, climate and soil, and the price of seed being duly noted.

FLOWER SEEDS.

Good clean pots, cigar boxes, and even the detestable can, which is always a hideous concern to a practical gardener, do excellently, providing there is a good outlet for water. Boxes are made 4 inches deep, 12 inches wide, and 2 feet long, and have the bottom boards open a little for drainage. These are most serviceable for the hot-bed. You can prepare and sow in the shed, and principally for the convenience of removing to other frames for transplanting. See drawing of prepared seed-pot. The time of sowing to an exact date is not so important as the other details. Flower seeds are raised most successfully in warm, sunny windows by many a lady of the house. A soil that is porous and will not bake hard with water, is desired. Finely sifted soil, leaf-mold, some sand and loam will act admirably. Fine soil put through mosquito-netting is essential to cover the minute seeds and also to be an inch in depth underneath the seed, the rougher soil under that and some broken pots or ashes or such like material in the bottom. The boxes or pots should be watered well through a fine rose can or sprayer with tepid water prior to sowing. Asters, stocks, zinnias, marigolds, phlox, carnation, require less than a quarter of an inch of soil. As a covering, nicotiana, salpiglossis, antirrhinums, celosia (kochia, the popular summer cypress) are examples that want a mere dusting of soil. Sunflowers, castor oil plants, and similar seeds of that size need half an inch of soil. Whether in the hot-bed or window, keep them shaded, with brown paper preferably, till germination takes place. The covering of the pots with panes of glass retains the moisture and warmth well till the seedlings come through the soil. Young seedlings like to be tolerably dry before they gain strength. Pots that get very dry should not be watered carelessly overhead. This results in washing seeds and seedlings helterskelter. Get a pail of tepid water, put the pot

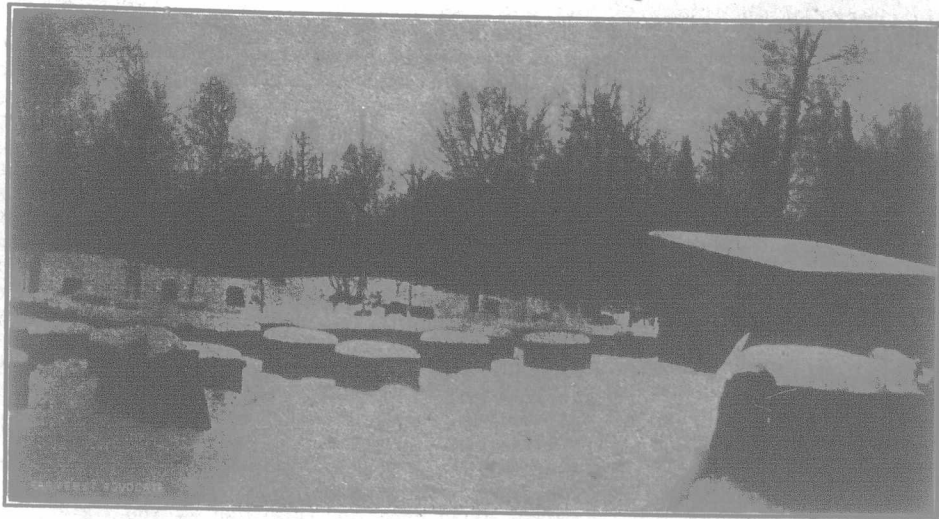
APIARY.

Shall Farmers Keep Bees?

No matter how we may feel like answering the above question, whether we are farmers or specialist beekeepers, the fact is quite apparent as one travels through the country that farmers have decided in the negative, for very few of them are keeping bees at the present. Many specialists honestly believe that it is better thus, as they reason that, in the majority of cases, the bees neglected will eventually die off, and in the end the farmer will be disgusted with the idea of keeping bees on the farm. Among the men that thus think, I might name our good friend R. F. Holterman, of Brantford, as well as others, who

few weeks, and even then probably one or two days in each of those weeks, is it necessary to devote work to the bees. The farmer cheerfully feeds his horses and milks his cows 365 days in the year, so why expect the bees to give you returns if you give them no attention at all? While the bees require comparatively little work, yet that little work must be done at just the right time, and the neglect of this important item is the cause of more failures in beekeeping on the farm than of all other causes combined. Swarming is the great bugaboo of the farmer-beekeeper. With a few colonies, it is easy to work them that there will be no swarming, and the work at haying or harvesting need not be disturbed in the least, as any necessary work for the few colonies can be done at the noon hour or in the evening. As for taking the honey off, even that need not

interfere with the farm work, as, with the help of plenty of supers, all can be left in the hives till the farmer is ready, and after all he will have a better quality of honey by leaving it there, provided, of course, the white honey is taken off before buckwheat comes on. All the old-time labor, to say nothing of stings, etc., that come the way of the timid beekeeper, can be avoided by the bee-escape board. This contrivance is simply placed between the brood



No. 1.—Lovering Apiary in Winter.

as I have intimated, have so decided from honest motives, and not because of the fear that their business would be endangered by reason of more bees being kept on the farm. As a specialist beekeeper myself—that is, as one who depends solely upon keeping bees for a livelihood—I realize there is much in the claims of those who thus think, and yet, at the same time, I cannot get away from the thought that the farmer has the first right to the nectar that is produced on his farm, and, to me, it is always a source of wonder that more farmers do not avail themselves of the opportunity and, at least, keep enough bees to supply them with the best of all sweets that nature has supplied us with, and to have it at a price that will never be felt as a drain upon the purse, as there is no question but that a few bees PROPERLY CARED-FOR will yield as great or greater returns from capital invested as will any other stock on the farm. I think I hear some one say as they read those three emphasized words, "Ah, there is the rub—if we could only properly care for them." And right here, let me

nest and supers to-day, and to-morrow the empty supers, empty of bees can be carried inside without even the trouble of starting the smoker. The disease problem must also be considered, but the specialist has the same fight, and has more at stake in case he gets hit; so why need the farmer fear it so much, especially when the same sources of information are at his service as the specialist has? At any rate, I doubt if bee diseases are harder to fight than is San Jose scale, or other pests that confront fruit growers. Wintering is also a problem, but modern methods have overcome this a great deal, and with proper preparation given the bees, the farmer can feel just as sure of them wintering as he looks forward to the three or four calves in the stall being turned out to grass next May. All things considered, never was the opportunity better than at the present for farmers to keep a few bees properly and profitably, and most certainly the writer, if on the farm again, would "keep bees." The picture shown illustrates a cheap and good way of wintering outdoors, each of the cases having two hives inside, packed on all sides with sawdust and having about ten inches of leaves on top of the brood nests. No. 1 shows a part of the apiary taken from the west side. No. 2 is a close view showing construction of the cases. (Note the entrances of those in the front row.) There were 135 hives in all. This apiary is 100 miles from my home, in the Township of Matchedash, and I do not expect to see it till next spring, and in the meantime no work will be done there.

What would happen if we never went near our horses or cattle for a period of months at a time? As will be noticed, this apiary is right in the bush, so to speak, and yet within 40 rods, in open country, with the finest of alsike forage in Ontario. However, it is also near enough to the rock country to the east to allow a stray deer to wander in the yard once in a while, and last fall one was shot right near the honey house shown in the pictures.

Big Returns from Bees.

The criticism has been offered that I am attempting to make more beekeepers in Ontario. If those who are at present keeping bees can be aroused to the possibilities of the business, it will not be necessary to make new ones. We already have the names of 8,000 beekeepers on our lists, and find that these take more interest in the work we are doing than others, because they know something of the financial returns and are anxious to increase their business. An effort has been made by some to represent beekeeping as a great mystery, and something with which almost insurmountable difficulties are connected. There is no doubt that it requires care and experience and adaptability to succeed with bees. A great many beekeepers get little or no returns from



No. 2—Hive Construction, Lovering Apiary.

say that bees must be cared for if success is to be obtained, and, at the same time, never have we had the chance to obtain the necessary information as at the present, when the press, Farmers' Institutes, agricultural representatives, short courses, and various other sources of knowledge are available to all who will interest themselves in this most fascinating branch of rural industry. Aside from the monetary returns of a few colonies of bees on the farm, their value as an educator, especially where boys and girls are being reared, cannot be estimated in dollars and cents. Nature study is all in vogue now, and children, as a rule, are eager students in this branch of the curriculum—instead of giving the boy or girl a calf to rear, why not give them a colony of bees and let them study the mysteries of the hive, the value of the bees as pollinators, etc.?

While, as we have already said, care is necessary for bees, as well as for other live-stock on the farm, let it be understood that only for a

almost to the rim in the water. The water will thoroughly saturate the soil from the bottom to the surface, and you will find this will do for about a week. Tomatoes are one of the easiest plants to raise. Celery is much longer in germination and needs a good brisk bottom heat. It will do well if the seed-pot of celery or box is plunged well down amongst the hot manure. To minimize the work, sowing the seed in rows in the hot-bed is generally carried out. After sowing, remember to put in labels, names of varieties, time of sowing, and any other notes. In the succeeding seasons you will find a garden note book a mine of information. The middle to the end of March is a good time to put in tomatoes, onions, celery, peppers, egg plant, early cabbage, cauliflower, Brussels sprouts, lettuce, and musk melons. About the 23rd I sow half-hardy annuals of all kinds—asters, zinnias, antirrhinums, nicotiana, verbenas, phlox Drummondii. The first week of April, stocks, dianthus, sunflowers, marigolds, balsams, coreopsis, centaureas, etc., etc. To get the good of the season and have flowers a long season, I sow what is termed hardy annuals about the last week of April, and transplant into cold frames. Sowing rare and choice annuals outdoors in the vagaries of our spring weather, is, to my idea, radically absurd. Sow in a sheltered frame, and get plants that will give you credit for bloom in the garden. After the seed is in the hot-bed, keeping the frame well protected at nights with sacking is called for. If you water, do so about mid-day, and on a sunny day at that. When the seedlings come up, it is a critical time with snow and frost abounding outside. In bright days tilt up the sashes at the back, avoid any cold drafts over the plants. Use tepid water. As the days lengthen and plants strengthen, increase the air and give all possible light. There is nothing worse to handle than long, spindly tomatoes or celery plants. Close the sashes down early at night and cover up securely on severe nights. Transplant before crowding commences into other prepared beds. Tomatoes grow rapidly, and they must have room to grow. Ottawa. A. V. MAIN.

Diseased Potatoes for Seed.

Potatoes in this neighborhood are badly diseased. If the sound-looking ones were picked out would they be suitable for seed? A. G.

In all probability the trouble referred to is the ordinary Rot or Irish Rot of potatoes, which is caused by a fungus which also causes blighting of the tops. This disease is carried over from season to season by the fungus threads in tubers used for seed, or left in the soil when the crop is harvested. Tubers, which are apparently sound, may contain the fungus threads which cause this disease. It is, therefore, very probable that all the sound potatoes from the diseased ones will be infected and will produce blight and rot if used for seed, provided the weather conditions are suitable for the development of the fungus. In a dry season such tubers might be safely used, but in a wet season such as last, the use of such tubers would undoubtedly increase the amount of the blight and rot. It is, therefore, safer to use for seeding purposes, tubers from a rot-free crop. On account of the prevalence of the rot this past season it will be practically impossible to obtain seed potatoes this spring which are free from infection by the blight and rot fungus. The severity of the disease next season will, therefore, to a large extent, depend upon the weather conditions.

Thorough spraying at the proper times, however, provides a means of preventing both blight and rot, and will amply repay in increased yields for the time and material used. Spray with Bordeaux mixture (4-4-40 formula) when the plants are from 6 to 8 inches high, and repeat at intervals of from 10 to 14 days, in order to keep the plants covered with Bordeaux throughout the season. Take special care to see that the spraying is very thoroughly done, if the weather is at all damp about the 15th of July. Add poison, when necessary, for potato beetles, arsenate of lead, 3 pounds to 40 gallons or Paris green, 1 pound to each 40 gallons. The number of applications required to keep the plants covered with Bordeaux will depend on the season. In a dry season, three applications may suffice, while in a wet season as many as seven may be required.

Potatoes showing any signs of disease should never be used for seed. Potato canker, dry rot, scab and, in fact, nearly all the common potato diseases are spread through the agency of diseased seed. J. E. HOWITT.

O. A. C., Guelph. Professor of Botany.

British Columbia apples have become firmly established in the New Zealand market, reports the Canadian Trade Commissioner in that sister colony. Importers were pleased with the fruit and wish to secure more. This illustrates the value of a reputation.

their hives. I believe the same can be said of keepers of poultry, and many other such things on the farm.

Let me cite one instance to show that it is not necessary to take years to gain a working knowledge of beekeeping. In the fall of 1910 one of the first-year students of this College took the lectures in Apiculture along with the rest of his class. He became especially interested in the subject and asked me for work for the following season. A place was secured for him with a beekeeper managing a large number of colonies. He came back to us in the fall of 1911 and took his second year, receiving no instructions in beekeeping whatever during the term, except the two-weeks' short course in January. In the spring of 1912 he was placed in charge of an apiary of thirty colonies. He came to me almost every week for advice, but had practically the whole responsibility of the apiary. He increased this apiary to sixty good colonies and extracted 2,500 lbs. of honey—this in a locality where one would not expect a large amount of honey with the best of management. The crop sold in the fall for \$300, and the increase of thirty colonies would be worth \$100, at a rough estimate, making the returns from this apiary \$400. The time spent by the young man in working at this apiary was no more than two days per week, and this only during the summer months. If anyone can show better returns than this from the other branches of farming, which are receiving so much more attention and expenditure of Government money, I would like to hear it.

Someone would say there are diseases, winter loss, and poor years. True, but we find that there has never been a winter of heavy losses when careful beekeepers have not wintered successfully, and in the districts of most disease, bees are being kept successfully at good profit. It is easy for the college man, or any other careful man or woman, to learn successful wintering and disease control. In spite of poor seasons, there has never been a summer when many sections of Ontario have not had good crops of honey, and in almost the poorest year some good colonies in the apiary will secure a crop. The point to be got here is the necessity of care in the selection and distribution of location for the apiary and in the selection and breeding of bees. The elements of success in beekeeping are no more intricate or mysterious than those required in any other branch of farming.

Summing up the results of co-operative experiments in apiculture for 1912, we find that we had 49 experimenters, with 1,506 colonies, spring count, and 2,080 colonies, fall count. This represents an investment of \$20,000 at the very outside. Their income for 1912 is, first, their increase of 574 colonies, which, without hives, would be worth at least \$3 each in the fall, totalling \$1,722; also 97,042 lbs. of honey, worth, at a low estimate, \$10,000. This gives each of our 49 experimenters the neat dividend of 58 cent. on his capital invested. If anyone can show as good returns on capital invested from any other branch of farming, taking an average of results from fifty farmers scattered all over Ontario, I would be glad to hear his report.

The intensive farmer who created the sensation of the recent Experimental Union Meeting, by telling how much he made on a two-and-a-half acres of land, that stated that his biggest returns were from the hives of bees which were located on his two-and-a-half acres, but did not mention that they ranged over an area of several square miles in gathering this result. Prominence was given in the press to this as a result of intensive farming, when it was, really, a result of beekeeping. The following returns received from beekeepers who have sent reports from all over Ontario during 1910, 1911 and 1912, make interesting reading:

In 1910—633 beekeepers, from 31,145 colonies, produced 1,643,900 lbs. of honey—an average of 52 lbs. per colony.

In 1911—749 beekeepers, from 32,009 hives, produced 1,489,000 lbs. of honey—an average of 46 lbs. per colony.

In 1912—569 beekeepers, from 29,564 hives, produced 1,011,200 lbs. of honey—an average of 34 lbs. per colony.

This reduction is due to poor seasons, but an average return of \$3.40 from a \$10 investment is not so bad.

MORLEY PETTIT,
Provincial Apiarist.

POULTRY.

Poultry Equal to the Best.

That Montreal has right at her doors an institution which can provide delicacies in the way of poultry and all sorts of agricultural products equal to any on this continent is the discovery recently made by Mr. Bishoff who, as the manager of the Ritz Carlton Hotel in that city, and as a man of many long years' experience in connection with the same system of hotels in England and Europe, ought to know what he is talking about.

Furthermore, Mr. Bishoff, not contented with expressing these views, has decided to switch the trade of the Ritz Carlton from American products as much as possible, and in this connection has already placed a large contract with the Macdonald College, at Ste. Anne de Bellevue.

Until the other day it was the opinion of those in control of the cuisine at the Ritz Carlton that imported poultry and other table birds were vastly superior to the domestic product, and as a consequence the home article received little or no attention. That this view was not shared in by everyone with whom Mr. Bishoff came in contact was evidenced by conversations he had during the past few weeks in which the advocates of the domestic bird suggested that he should pay a visit to Macdonald College, and inspect the various departments established there for the purpose of demonstrating what degree of perfection could be attained in Canada. Mr. Bishoff accepted the suggestion, and after his visit returned to Montreal a convert.

Said he:—"I was amazed at the perfection that has been attained at the College. After a varied experience on this side of the water, and the continent I find nothing superior to, if the equal of, this school. Therefore, we have decided to transfer our contracts from the States and abroad, whenever possible, and give them to Macdonald College.

From examination of many dead birds sent in to Dr. C. H. Higgins, Pathologist of the Dominion Department of Agriculture, the conclusion is reached that black-head among turkeys and tuberculosis among fowls are the two most fatal diseases among our domestic avian stock, and are creating much havoc among the poultry of the country.

THE FARM BULLETIN.

The Great Shorthorn Sale.

The annual consignment sale of pure bred Shorthorn cattle was held at the Union Stock Yards, Toronto, on Wednesday, Feb. 5th. There was a gathering of upwards of 400 breeders present coming from all the provinces of the Dominion, and from many of the States of the Union. The class of cattle annually offered at this sale is so well known that little need be said about them. They are always the best representatives of the breed in the noted herds of the gentlemen who consign them. Mischief E. 3rd, the heifer which won the grand championship at the recent Guelph Winter Fair for W. R. Elliot & Sons, Guelph, Ont., and which was purchased from them by Robert Miller, topped the sale at \$700, going to F. W. Harding, Waukesha, Wis. Her former stable mate, Ramsden Queen 2nd, one of the best show-yard propositions of the offering was taken by Carpenter & Ross, of Mansfield, Ohio, at \$500. J. A. Watt's Orange Lady 2nd at \$550 was a good buy for T. Staunton, of Aurora, Ill., and several others of his classy heifers were bought right. All the stock was in fair condition, not overfitted but ready for "active service." At times the bidding dragged a little, but on the whole was very free and well looked after by auctioneer Carey M. Jones, of Chicago, Ill., assisted by Capt. Robson, of London, Ont. The following list tells the tale, and, while no very sensational prices were obtained, a good average is shown.

CONSIGNED BY ROBERT MILLER, STOUFFVILLE.

Burnbrae Fairy, E. B. Thorn, Augusta, Maine.....	\$110
Bessie Lady, E. B. Thorn.....	175
Lind's Pride (bull), Mr. Bowes, Strathnairn, Ont.....	255
Moss Rose 10th, F. W. Harding, Waukesha, Wis.....	190

Mischief E. 3rd, F. W. Harding.....	700
Ariadne Gloster, E. B. Thorn.....	150
Maxwalton Clara, Thos Russell, Toronto.....	375
Red Star, D. Smith, Belmont, Ont.....	125
Broadhook's Rose 4th, F. W. Harding.....	225
Princess Alice 10th, F. W. Harding.....	125
Broadhook's Champion (bull), E. B. Thorn.....	210
Princess Alice 12th, E. B. Thorn.....	150
Regal Sultan (bull), A. Russell, Anprior, Ont.....	270
Princess Alice 14th, H. K. Fairbairn, Thedford.....	135
Prince Jubilee (bull), C. Hutton, Douglas, Ont.....	200
Claret Girl, E. B. Thorn.....	100
Broadhook's Rose 12th, James I. Miller, Bertie, Man.....	200
Sally 14th, W. H. Morden, Oakville, Ont.....	140
Buckingham Sultan, J. L. Howard, Milton, Ont.....	140
Sultan's Lavender, J. G. Borland, Claremont, Ont.....	215
Village Superba, E. B. Thorn.....	125
Morning Star (bull), E. B. Thorn.....	95
Lovelace 5th, W. H. Morden.....	115
Average for 23 head, \$196.74.	

CONSIGNED BY J. A. WATT, SALEM, ONT.

Colia 2nd, J. M. Gardhouse, Weston, Ont.....	200
Red Bessie 4th, H. K. Fairbairn, Thedford.....	200
Royal Standard (bull), Coneybear & Wood, Sandbank, Ont.....	180
Missie of Clover Lea 7th, F. W. Harding.....	345
Scotch Bloom 2nd, A. J. Colwell, Arthur, Ont.....	200
Miss Lovelace 3rd, Thos. Mercer, Markdale.....	285
Gainford Victory (bull), D. H. Jones, Bagot, Man.....	525
Miss Mayflower 3rd, Smith & Heisserer, Oran, Miss.....	265
Crimson Beauty, T. A. Dolloff.....	230
Orange Lady 2nd, T. Staunton, Aurora, Ill.....	550
Elvira's Rose 29th, J. M. Gardhouse.....	250
Rosewood Chief (bull), N. Littlejohn, Muirkirk, Ont.....	275
Emmeline 19th, W. C. Wilson, Mitchell Square.....	230
Roan Beauty, Smith & Heisserer.....	255
Roan Lass, Smith & Heisserer.....	405
Jealousy 4th, J. M. Gardhouse.....	460
Average for 16 head, \$303.43.	

CONSIGNED BY PETER WHITE, PEMBROKE, ONT.

Nonpareil 72nd, E. B. Thorn.....	310
Pine Grove Duchess of Gloster, Joseph Barnet, Moose Jaw.....	325
Pinnacle (bull), Dr. Sproule, Markdale.....	205
Blythesome Girl, E. B. Thorn.....	215
Mountaineer (bull), G. E. Morden, Oakville.....	350
Rosewood Gem, W. C. Rosenberger, Tiffin, Ohio.....	290
Laurentian (bull), T. A. Dolloff, Mt. Vernon, Maine.....	165
Mina Lass 6th, J. M. Gardhouse, Weston.....	190
Belmar Lass, N. C. Coutts, Toronto.....	100
Belmar Miss Ramsden 2nd, Dr. Sproule.....	190
Ruby of Pine Grove, L. E. Wakely, Bolton, Ont.....	175
Belmar Lass 2nd, J. A. Watt, Salem, Ont.....	240
Belmar Miss Ramsden 4th, Capt. T. E. Robson, London, Ont.....	230
Belmar Beauty, C. E. Bain, Taunton, Ont.....	150
Belmar Flower 2nd, H. K. Fairbairn.....	145
Average of 15 head, \$218.66.	

CONSIGNED BY W. R. ELLIOT & SONS, GUELPH, ONT.

Ramsden Queen, Geo. Miller, Brougham, Ont.....	245
Climax (bull), S. Dymont, Barrie, Ont.....	350
Bridal Ruby, Joseph Barnet.....	200
Ramsden Queen 2nd, Carpenter & Ross, Mansfield, Ohio.....	500
Average of four head, \$323.75.	

CONSIGNED BY JOHN MILLER, JR., ASHBURN, ONT.

Duchess of Gloster Girl, E. B. Thorn.....	150
Pride of Gloster 12th, E. B. Thorn.....	165
Matchless Belle 3rd, Peter Stewart, Everton, Ont.....	185
Roan Beauty, Robert Miller, Stouffville.....	100
Fancy's Pride (bull), Thos. Scott, Sutton.....	125
Village Duke 2nd (bull), James Kendrick, Essex, Ont.....	100
Average of six head, \$137.50.	
Total sale price of the sixty-four head sold, \$14,780; or an average on the lot of \$224.68 per head.	

Co-operative Credit Wanted.

Editor "The Farmer's Advocate.":

Having been a reader of your esteemed paper for three or four years, and not noticing any communications from this section of the country, I venture to write a few lines. Your article in Jan. 9th, on the above subject, touches a timely topic, especially for this section. I am living in the State River Valley, 10 miles from Fort William. As an agricultural district it is comparatively new. What we need is more capital. As at present managed, banks are of very little use to farmers. A three-months credit is no use if one

wants to add a few head of well-bred stock to start with, or clear more land and put up better buildings. As an example of what capital would do for us, take the speech of the Hon. W. J. Hanna at the Canadian Club, Toronto, where he stated that the New Prison Farm, six miles from Fort William (it is six miles from where I live), where the Government has taken 1,000 acres for a farm, which a year ago was worth \$10.00 an acre, in another would be all cleared and then would be worth \$100.00 an acre.

I hope while the Bank Act is under consideration something might be developed whereby we could get capital to work with on the credit of

our farms, which should be ample security without resorting to mortgages, where the interest generally goes to some person that does not need it. We sometimes flatter ourselves that Ontario is more progressive than Quebec, but we could copy some of their methods with profit. Agriculture in Canada has not come to its own yet. When it has representation in parliament in proportion to what it is entitled to, we will not see the spectacle as at present of the Government, before they can make any changes in the tariff, having to consult with the Manufacturers' Association to see whether it will suit them or not. Thunder Bay District, Ont. G. B. SMITH,

All Records Broken at the Live - Stock Conventions.

Canada's live-stock industry is soon to receive a pronounced impetus if one may judge by the attendance and enthusiasm displayed at the annual meetings of the various associations held in Toronto last week. Not for years has the attendance reached that of this year, and never was the general tone of progress and confidence so evident. Canada is a live-stock country par excellence. All the different classes of stock are growing in favor, and nearly all the various breeds are increasing in numbers of registrations. It was live-stock week in Toronto, and a finer and more representative aggregation of men could not be found than those in attendance at the annual meetings this year. Live-stock affairs are in a healthy state. Plenty of money is on hand and available to push the work, and we may safely look forward to years of growing success for the stockmen.

Hampshires, 2 Berkshires and 8 Yorkshire hogs, making a total of 154 head.

Transportation was pointed out as the greatest problem in getting stock from the East to the West. Col. McCrae, of Guelph, discussed the matter of the railway contract, which the stockmen are endeavoring to get changed so as to place live-stock on the same basis as other shipments.

The officers for the ensuing year are as follows:—Directors appointed by different breed associations. General Directors, John Gardhouse, Highfield, and Prof. G. E. Day, Guelph; Representative to the Canadian National, John Gardhouse; Representatives to Western Fair, A. W. Smith, Maple Lodge, and A. E. Meyer, Guelph; Representatives to Central Canada Exhibition, Ottawa, W. A. Wallace, Kars, and R. J. Mackie, Oshawa; to the Ontario Winter Fair, John Gardhouse; W. A. Dryden, Brooklin; W. D. Ballantyne, Straiford; R. S. Stevenson, Ancaster; to Ottawa Winter Fair, Peter White, Pembroke; W. F. Stephen, Huntingdon, Que., and J. H. Grisdale, C. E. F. Ottawa.

Ontario Berkshire Breeders' Society.

The annual meeting of the Ontario Berkshire Breeders Society, held in the Walker House, Toronto, Feb. 4th., was unusually well attended, testifying to the growing popularity of this great English breed of swine. The discussions were keen and helpful, and the members dispersed feeling that they had held one of the best meetings of the Society's history. The financial statement showed a healthy condition of affairs, although there was a little less cash on hand than a year ago, there now being \$156.03 against \$217.00 in 1912. During the year which has just closed there were 2,257 registrations of the breed as against 1,214 in 1909, and 1,884 in 1911. This is surely encouraging.

The grants to the various exhibitions were reduced a little, and now stand as \$75.00 each for the Ontario Winter Fair, and the Canadian National at Toronto, and \$40.00 each for the Western Fair, London; the Central Canada Exhibition, Ottawa, and the Eastern Ontario Live-Stock and Poultry Show, Ottawa.

The new officers are:—President, John Kelly, Shakespeare; Vice-President, P. J. McEwen, Kirtch; Directors, John Kelly; P. J. McEwen; T. A. Cox, Brantford; Sam Dolson, Norval Station; D. Brien, Ridgetown; J. M. Vanderlip, Cainsville, and W. W. Brownridge, Ashgrove; Executive Committee, John Kelly, P. J. McEwen, and T. A. Cox.

A Lively Holstein Meeting.

One of the most largely attended and lively meetings of the entire stock-association week at Toronto, was that of the Holstein Friesian Association, held in the Temple Building, Feb. 6th. Three hundred ardent admirers of the black and white cattle, filled brimful of confidence in their breed and in themselves to further that breed, kept up one of the warmest discussions ever listened to in any kind of a meeting.

The business of the year was such as to warrant their high spirits, for registrations, since they last met, passed the 7,000 mark, as compared with about 300 thirty years ago. Two hundred and twenty-four new members joined during the past year. The total number of official tests was 546, of which 371 were new 7-day tests, 97 additional 7-day tests, 31 14-day tests, one 24-day test, 37 were 30-day tests, 2 were 40-day tests, 2 were 50-day tests, and 5 were special tests. Twenty-seven bulls were admitted to the Record of Merit during the year. There are now 99 bulls and 1541 cows entered. Ninety-six cows qualified in the Record of Performance during the year. Registrations numbered 7,104 and trans-

fers 6,705, showing the healthy state of the trade.

Financially this Association is a regular gold mine. The balance on hand is \$6,140.89 as against \$2,039.04 a year ago, or an increase of \$4,101.85. The total assets of the Association amount to the handsome sum of \$15,608.98.

A committee which was appointed at the last annual meeting to investigate the matter of becoming affiliated with the National Live-Stock Records Branch, reported that they found it more economical to remain as they are, even though the Government does pay one-half the cost of maintaining the National Records Office.

The proposal of the American Holstein-Friesian Association, that in order that that Association might be in a better condition to deal with the matter of recording of animals from the Canadian Association, and vice versa, the Canadian rules of entry be made identical with theirs, in matter of entry fees and membership fees was voted down almost unanimously.

The fee for import certificates of animals entering this country from the United States was placed at \$25 for bulls and \$10 for females.

W. A. Clemons, of St. George, Ont., was appointed the new secretary at a substantial salary increase.

The following grants to fairs were made:—Toronto an amount equal to that given by the Fair Board, not to exceed \$500; Sherbrooke, \$150; London, \$150; Ottawa, \$150; Quebec, \$100; Winnipeg, \$125; Brandon, \$125; Calgary, \$125; Regina, \$125; Victoria, \$125; New Westminster, \$125; Edmonton, \$125; Fredricton, \$75; Chatham N. B., \$75; Charlottetown, \$50; Halifax, \$75; Saskatoon, \$125; Vancouver, \$125; Ontario Winter Fair, \$450, (left in the hands of a committee); Eastern Ontario Live-Stock and Poultry Show, \$375, with three specials of \$25 each and \$50 added if the champion is a Holstein; Amherst N. S. Winter Fair \$200, and additional specials as at the Eastern Ontario Show.

Officers:—President, Jas. Rettle, Norwich, Ont.; First Vice-President, R. F. Hicks, Newtonbrook, Ont.; Second Vice-President, D.C. Flatt, Millgrove, Ont.; Third Vice-President, M. L. Haley, Springfield, Ont.; Fourth Vice-President, J. W. Richardson, Caledonia, Ont.; Directors, Stanley A. Logan, Amherst, N. S.; N. Michener, Red Deer, Alta; W. J. Brethen, Norwood, Ont.; N. Sangster, Ormstown, Que.

The Holstein Banquet.

Holstein breeders, many of them accompanied by their wives, held the most successful banquet in their history at "Naismiths," Toronto, on the evening preceding their annual meeting. The menu, as the president of the Association, J. E. K. Herrick, who presided at the banquet said, was "Fit for any king," and the good things were consumed with a relish peculiar to country folk who enjoy the fresh air and sunshine to its uttermost. Truly "the elements" were kind to those present.

The toast list was a rather long one, including addresses by such noted speakers as the Hon. Martin Burrell, Hon. D. Derbyshire, Dr. O. C. James, Prof. Geo. E. Day, Frank Herms and R. F. Hicks. All were strong in their praises of the Holstein cow.

Hon. Mr. Burrell, in a short effective speech, clearly showed that he was heartily in sympathy with all work intended to advance all live-stock interests.

Dr. James in the speech of the evening outlined Canada's possibilities and urged all agriculturists, Holstein breeders included, to "get busy," and do their utmost to work out the intricate agricultural problems now facing the people.

Prof. Day pointed out in a short clear speech that "world-beater" records should not be the only aim of the breeders. Constitution should not be lost at their expense.

Frank Herms urged that our dairymen be wide-

Shire Men Meet.

At the annual meeting of the Canadian Shire Horse Association, held at the King Edward Hotel, on Friday, Feb. 7th, the secretary's annual report showed a most decided advancement of the Association's interests for the year just closed over any preceding year since the inauguration of the Association. There were 190 registrations and 100 transfers during the year, and the importations totalled 42 stallions and 40 fillies; a decided increase over 1911. It was also strongly urged that undivided attention must be given to the improvement of the quality, more particularly in the matter of less and finer quality, of hair on the legs. The president, in his annual address, also urged an increased attention to quality, and spoke most encouragingly of the future prospects of the Shire horse in this country. The financial report showed a total of receipts for the year of \$1,455.00, and a total expenditure of \$290.03 leaving a cash balance on hand of \$1,163.00, which is considerably the strongest in the Association's history. Election of officers resulted in the following:—President, A. A. Miller, Middlemarch; Vice-President, C. E. Porter, Appleby; Directors, David Porter, Appleby; A. Agar, Nashville; John Gardhouse, Highfield; J. M. Gardhouse, Weston; T. D. Elliott, Bolton; W. Alcorn, Priceville and W. Pearson, Hamilton; Vice-Presidents for the Provinces, Ontario, D. Messinger, Gueph; Quebec, Neil Sangster, Ormstown; Manitoba, F. Scott, Bagot; Saskatchewan, P. B. Ross, Greenfall; Alberta, T. Rawlson, Wimborne; British Columbia, Alex Davie, Ladner; Representatives to the record board, John and J. M. Gardhouse. The grants to the various exhibitions were the same as last year, with the addition of \$50.00 to the Dominion Exhibition at Brandon, Man.

Dominion Cattle Breeders' Annual Meeting.

It was not a large delegation from the different cattle breeders' associations which assembled in the Walker House, Toronto, on Feb. 3rd, to discuss matters of vital interest to the association, but the attendance was representative of all the breed societies as well as all the provinces of the Dominion. The Dominion cattle breeders are financially strong, having \$550.99 in the treasury on Jan 31st. last. John Gardhouse, President of the Association, drew the attention of those present to the decrease in some classes of cattle in this country, and urged greater efforts on the part of the breeders.

There proved to be a deficit in connection with the sending of pure-bred stock to the West during the past year, and John Gardhouse, Wm. Smith, James Douglas, Col. McEwen and Col. McCrae, were appointed a committee to adjust the paying of the deficit among the various breed societies. There were 48 Clydesdales, 9 Shires, 2 Standard-Breds, and 2 Hackney horses sent out, 10 Holsteins, 29 Shorthorns 8, Ayrshires and 2 Jersey cattle; 9 Shropshires, 4 Dorsets, 7 Leicesters, 2 Oxfords and 2 Southdowns; 4 Tamworths, 6

awake in the matter of keeping oleomargarine out of this country.

It was an evening enjoyed by all present, and as such meetings are bound to do, promoted sociability and general good feeling.

Shorthorn Cows Must be Milk Producers.

One of the most largely attended meetings in the history of the Dominion Shorthorn Breeders' Association was held in the Temple Building, Toronto, February 4th. Many important questions were discussed, foremost among which was a record of performance for Shorthorn cows. The cow, to be valuable at the present time, must be able to show a profit at the pail, and the average mixed farmer requires a cow profitable for beef and milk as well. Such a cow the Shorthorn is and is to be. W. A. Dryden, of Brooklin, introduced a resolution in view of the fact that the dairy business is making such rapid strides, and because of lack of knowledge of the milking capabilities of Shorthorns and the scarcity of good young bulls from milk-producing dams, and because breeders do not believe it advisable to allow short-pedigreed milking Shorthorns into the Herd Book. Resolved—

1.—That the Dominion Shorthorn Breeders' Association commend the work of the Dominion Department of Agriculture in establishing a Record of Performance Branch for the purpose of securing reliable information to the milk production of females of the various breeds of cattle.

2.—And expressing a desire to secure the assistance and co-operation of the Dominion Department of Agriculture in establishing and maintaining a Record of Performance List for Shorthorn cattle, duly recorded in the Canadian National records by qualified members of this Association.

3.—That, in order to carry out the full purpose of this resolution, the name of the breeder, owner and animal's name and number, together with record and other desirable information of animals producing over a fixed standard, shall be published as an appendix each year in the Dominion Shorthorn Herd Book.

Prof. G. E. Day, speaking to the resolution, stated that he did not believe that there was as much difference between the requirements of an animal for milk and beef production as many thought. He, together with W. A. Dryden, A. W. Smith, and John Gardhouse, were appointed a committee to draft a standard.

Peter White, of Pembroke, Ont., pointed out, in his presidential address, that beef cattle were becoming still scarcer, and the demand for Shorthorns for foundation stock was never better. Our country, east and west, is growing rapidly, and the increased population, most of which is drifting cityward, must be fed on good beef. He regarded the new tuberculosis regulations of British Columbia as a retrograde step, not conducive to the advancement of interprovincial trade. The policy with regard to this disease, he believed, should be the same the Dominion over. Tuberculosis is the big question confronting the cattlemen. He urged the Association to see to it that they got their share of the \$10,000,000 which the Dominion Government is devoting as a special grant to agriculture. He foresaw higher-priced land, more intensive farming, a higher standard of living, and "a cow will not be called a cow unless she pays her way and yields a profit at the pail." Enormous amounts are now given by the Government to aid dairying, and practically nothing is given to further the beef industry. According to Mr. White, \$300,000 is granted yearly to dairying in Ontario alone, and \$5,000 to the beef interests, this latter consisting largely of prizes at Ottawa and Guelph Winter Fairs. He urged Shorthorn men to be up and doing and to "push" the breed.

The registration fees for animals under 24 months of age were increased for members to \$1, and for non-members to \$1.50; and for animals over 24 months old to \$2 for members, and \$3 for non-members.

The annual report was none too satisfactory. There were 6,681 registrations during the year, 2,763 transfers, and \$3,024 received in membership fees. The balance on hand is \$5,185.16, less liabilities, which will reduce it to about \$2,045.

The new officers are:
President—Harry Smith, Hay, Ont.
First Vice-President—J. M. Gardhouse, Weston, Ont.

Second Vice-President—W. A. Dryden, Brooklin, Ont.

Directors—John Gardhouse, Highfield, Ont.; J. T. Gibson, Denfield, Ont.; J. A. Watt, Salem, Ont.; James Leask, Greenbank, Ont.; C. A. Archibald, Truro, N.S.; Wm. Smith, Columbus,

Ont.; J. G. Barron, Carberry, Man.; J. F. Mitchell, Burlington, Ont.; J. A. McClary, Hillhurst, Que.; R. Amos, Moffat, Ont.; R. W. Caswell, Saskatoon, Sask.; Harry Pettit, Freeman, Ont.; W. D. Cargill, Cargill, Ont.; W. R. Elliott, Guelph, Ont.; and S. Dymont, Barrie, Ont.

Grants to Fairs were made as follows:
Toronto, \$1,000; London, \$250; Guelph, \$225; Ottawa (Winter Fair), \$175; Toronto Junction, \$50; Winnipeg, \$200; Brandon, \$200; Brandon (Winter Fair), \$100; Regina, \$200; Saskatoon, \$200; Regina (Winter Fair), \$100; Calgary, \$200; Edmonton, \$200; Calgary (Winter Fair), \$100; Sherbrooke, \$100; Halifax, \$100; Amherst, \$50; Special grant to Brandon, \$400.

Delegates to Dominion Cattle Breeders' Association—J. A. Watt, Salem; A. W. Smith, Maple Lodge.

Delegates to Canadian National Exhibition, Toronto—W. G. Pettit, Freeman; Robert Miller, Stouffville. London—J. T. Gibson, Denfield; Capt. T. E. Robson, London. Ottawa—W. A. Wallace, Kars; and R. E. White, Perth. Halifax, N.S.—R. S. Starr, Port William, N.S.; F. L. Fuller, Truro, N.S. New Brunswick—Harold Etter, Westmoreland Point, N.B.; A. E. Trites, Salisbury, N.S. Charlottetown, P.E.I.—T. Cass, North River, P.E.I.; John Richards, Bideford, P.E.I. Winnipeg Industrial—James Yule, E. Selkirk; J. G. Washington, Ninga, Man. Calgary—Bryce Wright, De Winton, Alta; J. A. Turner, Calgary, Alta. Brandon—George Allison, Burnbank, Man.; Andrew Graham, Pomeroy, Man. Regina—George Kinnon, Cottonwood, Sask.; Robert Douglas, Tantallon, Sask. Sherbrooke—E. V. Norton, Coaticook, Que.; F. R. Cromwell, Cookshire, Que. Winter Fair, Guelph—J. M. Gardhouse, Weston, Ont.; W. R. Elliott, Guelph, Ont. Edmonton—James Sharpe, La Combe; J. F. Lyall, Storme, Saskatoon—Hon. W. C. Sutherland and R. W. Caswell, Saskatoon, Sask. Ottawa Winter Fair—W. A. Wallace, Kars, Ont.; Jas. Smith, Rockland, Ont. Regina, Brandon and Calgary Winter Fairs—Same delegates as appointed to Summer Fairs. Amherst Winter Fair—E. Crowe, Beaverbrook; R. A. Boswell, Amherst, P.E.I.

Standard-bred Interests Being Furthered.

A representative number of the breeders of Standard-bred horses met in annual meeting at the Prince George Hotel, Toronto, February 5th. One of the chief matters up for discussion was the organization of a Canadian National Trotting and Pacing Association, and a committee was appointed to organize this proposed association, and to arrange for incorporation. The finances of the association are in a good condition, there being \$1,912 in the treasury, besides \$300 still held for exhibitors. In 1912 about \$500,000 was given in prizes for trotting and pacing speed trials in Canada. The work of organizing the proposed trotting association was left in the hands of O. B. Sheppard, Jas. Cowan, Cannington, and Geo. Pepper, Toronto. All moneys made by the association over and above the amounts required for operating the association are to be used for the furtherance of the interests of the Standard-bred horse.

Officers.—Pres., O. B. Sheppard, Toronto; Vice-pres., J. Wesley Allison, Morrisburg, Directors elected.—Harford Ashley, Foxboro, Ontario; J. M. Baldwin, Kilarney, Man.; W. J. Cowan, Cannington, Ont.; George Pepper, Toronto; Dr. W. E. Baker, Hamilton; R. W. Davies, Todmorden, Ont.; Sam McBride, Toronto; James Wetherall, Galt; C. W. Speers, Brandon, Man.; T. Caster, Clarendon, Ont.; P. S. Clemens, St. George, Ont.; Andrew Miller, Middlemarch, Ont.

Yorkshire Breeders Meet.

At the annual meeting of the Ontario Large Yorkshire Swine Breeders' Society, held at the Walker House, Toronto, on Tuesday, February 4th, the financial statement for 1912, as read by Secretary Westervelt, showed the society to be in a most healthy condition, with a cash balance on hand of \$759.39, and registrations for the year of 2,712. The usual grants to the various exhibitions were, for the present year: Canadian National, Toronto, \$125; Canada Central, Ottawa, \$50; Western Fair, London, \$50; Ontario Provincial Winter Fair, Guelph, \$125; Ontario Eastern Live Stock and Poultry Show, Ottawa, \$75. To the Dominion Exhibition at Brandon, Man., it was decided to offer two prizes of \$15 each for best Yorkshire boar and best Yorkshire sow. The election of officers for the year resulted as follows: J. E. Brethour, Burford; Wm. Jones, Zenda; John Flatt, Millgrove; J. C. Stewart, Dalmeny; R. J. Garbut, Belleville; Major Hood, Guelph, and Ken Featherston, Streetsville.

Dominion Swine Breeders Meet.

The annual meeting of the Dominion Swine Breeders' Association was held in the Temple Building, Toronto, on Tuesday, Feb. 4th. There was a large attendance of breeders, and the spirit manifested was most optimistic. The annual report of the directors showed a total registration for the year just closed of 7,196, which, with the exception of 1910, was the highest in the history of the Society, the biggest increase in number of registrations from any of the provinces was from Alberta, which showed a total of 1345, compared with something over 500 in 1911. The financial statement disclosed a total receipts for the year of \$10,078.38 and a total expenditure of \$6,253.48, leaving a cash balance on hand of \$4,824.90. The reports of the representatives of the various Fair Boards showed the various executives to be most willing and anxious to meet the requirements and suggestions of the Live-Stock Breeders' Association. A motion was passed unanimously that a memorial of condolence be drafted and forwarded to parents of the late James O'Neil, who, at the time of his death, was a member of the directorate of this Society. The election of officers for the current year resulted as follows:—President, S. Dolson, Norval Station; Vice-President, John Flatt, Millgrove; Executive Committee, The President, Vice-President, Secretary Westervelt, Peter McEwen, Kertch, and Geo. Douglas, Mitchell; Directors, for Berkshires, J. D. Brien, Ridgetown; Yorkshires, Ken Featherston, Streetsville; Chester Whites, D. De Courcy, Bornholm; Poland Chinas, Geo. G. Gould Edgar's Mills; Tamworths, Geo. Douglas, Mitchell, Hampshires, Alex. Hastings, Crosshill; Duroc Jerseys, MacCampbell, Northwood; General Director, T. A. Cox, Brantford; Auditors, G. de W. Green, Toronto; Representatives to Fair Boards, Canadian National, John Flatt and S. Dolson; Canada Central, A. Dynes and R. J. Garbutt; Ontario Winter Fair, Prof. G. E. Day, R. H. Harding, John Flatt and J. D. Brien; Ottawa Winter Show, The President, R. A. Heron, J. C. Stewart and R. O. Morrow.

Canadian Pony Society.

Considerable enthusiasm was manifest at the annual meeting of the Canadian Pony Society, held at the Prince George Hotel, Toronto, on Thursday evening, Feb. 6th. The President's address was full of optimism for the future of the pony breeding industry, more attention being given by men of means in selecting ponies for the use of their children, and stating that for the development of courage and self-reliance in children nothing could compare with the handling, driving and riding of ponies. After considerable discussion, a motion was passed granting permission to grade ponies sired by a registered stallion competing for medals offered by the society in harness and saddle classes. The financial statement for the year ending Dec. 31, 1912, showed a total of receipts for the year of \$481.61 and a total expenditure of \$337.91, among which were several items brought over from the year before, leaving a cash balance on hand of \$143.70. Election of officers resulted as follows: President: T. A. Cox, Brantford. First Vice-President, C. Lovejoy, Mimico. Second Vice-President, W. J. Langdon, Toronto. Directors: H. M. Robinson, Toronto; Judge T. A. MacGillivray, Whitby; T. A. Graham, Clarendon; R. Graham, Bedford Park; J. M. Gardhouse, Weston; B. Mothersill, Oshawa; E. C. H. Tisdale, Beaverton; James Torrance, Markham; A. E. Major, Whitevale, and T. B. McCauley, Montreal. Representatives to the National Record Board, Judge T. A. MacGillivray and T. A. Cox.

Ontario Horse Breeders.

The annual meeting of the Ontario Horse Breeders was held at the Walker House, Toronto, on Thursday, Feb. 6th. The financial statement for the year ending December 31st showed a total of receipts, including a cash balance on hand at the beginning of the year, of \$1,235.00, and a total expenditure of \$714.25, leaving a cash balance on hand of \$520.75. President Wm. Smith in his annual address spoke of the general prosperity of the horse-breeding industry of Canada as well as that of all other lines of stock breeding, and voiced the opinion that the day had come when in the interests of the agriculture of the country there should be inaugurated and held annually one purely Agricultural National Exhibition, under the patronage of the Department of Agriculture at Ottawa, and run exclusively by the farmers and breeders of this country, stating that the agricultural interests of this country were going ahead at a rapid rate, and the livestock interests must keep pace with that development. Speaking of the recently enacted, Stallion-enrolment Act, he considered that, in the interests of the horse breeders, the Act should go farther and make inspection compulsory, an opinion that was voiced by several other speakers. The

Directors for various breeds are:—Clydesdales, Wm. Smith, M. P., Columbus; John A. Boag, Queensville; George Gormley, Unionville; Wm. Graham, Claremont; James Torrance, and T. H. Hassard, Marham; James Henderson, Belton; Peter Christie, Manchester; R. E. Gunn, Beaverton; A. E. Major, Whitevale; T. D. Elliott, Bolton; R. G. Graham, Bedford Park; Walter Milne, Green River, and Adam Scarf, Cummings Bridge; Shires, John Gardhouse, Highfield, and J. M. Gardhouse, Weston; Hackneys, J. W. Allison, Morrisburg; and Harry Boag, Barrie; Thoroughbreds, Wm. Hendrie, Hamilton, and Col. D. McCrae, Guelph; Standard-Breds, Geo. Pepper, and O. B. Sheppard, Toronto; Ponies, H. M. Robinson, Toronto, and T. A. Cox, Brantford; Percherons, E. C. H. Tisdale, Beaverton, and John Hawthorne, Simcoe; Representatives to the leading exhibitions, Canadian National, Toronto, Wm. Smith, M. P., Western, London; James Henderson, and Geo. Charlton, Duncrief; Ottawa Winter Show, Wm. Smith, A. Scarf, J. W. Allison, and Robt. Graham; Guelph Winter Show, Wm. Smith, John A. Boag, Geo. Pepper and Peter Christie. The matter of grants to fairs was left to the directorate.

Clydesdale Men in Annual Session.

The annual meeting of the Canadian Clydesdale Association was held at Victoria Hall, Toronto, on Thursday, Feb. 6th. There was a large attendance representative of every province in the Dominion. President Robt. Graham in his annual address dealt with the general prosperity of the Association which is now the largest in the Dominion, and recommended that all entries in the Clydesdale class be compelled to be made in the owner's name, and complimented the Clydesdale breeders particularly, and the live-stock breeders generally, on the appointment by the Minister of Agriculture of John Bright as Live-Stock Commissioner for the Dominion, a gentleman eminently fitted for the position from his long and intimate acquaintance with the live-stock industry of the country. The financial report showed the Association to be still progressing with rapid strides. During the last year there were added 150 new members, 4,065 registrations and 2,859 transfers. Up to Dec. 31st, 1912, the total number of stallions registered was 14,316, and mares 29,968, and the membership 1,522. During the last year there was received by registration \$10,828.59, the cash balance on hand, at the commencement of the year, 1912, was \$14,247.54, making a total of receipts for 1912 from all sources of \$28,643.98, and a cash asset over all liabilities at the close of the year of \$17,734.09, and a total of assets over all liabilities of \$18,182.22. The ballot for the Board of Directors for the current year resulted in the election of James Torrance, Markham; James Henderson, Belton; George Gormley, Unionville; Wm. Graham, Claremont; Fred Richardson, Columbus; T. D. Elliott, Bolton, and Walter Milne, Green River. Robt. Graham, Bedford Park, was elected President for a second year, and John A. Boag, Queensville, Vice-President. Vice-Presidents for the various provinces, Ontario, Peter Christie, Manchester; Quebec, Robt. Ness, Howick; New Brunswick, R. A. Snowball, Chatham; Nova Scotia, R. S. Starr, Port Williams; Prince Edward Island, Hon. John Richards, Bideford; Manitoba, John Graham, Carberry; Saskatchewan, W. H. Bryce, Arcola; Alberta, John A. Turner, Calgary; British Columbia, Capt. G. L. Watson, Cariboo. Representatives to the various fairs, Toronto National, Robt. Graham; Western, London, Col. McEwen, and James Henderson; Canada Central, Ottawa, Peter Christie, and Robt. Ness; Winnipeg Industrial, A. C. McPhail, and J. G. Watson; Brandon, A. Graham, and John Scarf; Calgary, E. J. Hallman, and D. Thorborn; British Columbia exhibitions, A. Davie, and A. Patterson; Regina, A. Mutch, and R. Sinton; Saskatoon, R. W. Caswell, and W. C. Sutherland; Edmonton, J. G. Clark, and R. Wright; Amherst, N. S., S. A. Logan, and R. S. Starr; Halifax, W. W. Black, and L. McFarlane; Chatham, N. B., R. E. Snowball; Brandon Winter Fair, A. C. McPhail; Regina Winter Fair, R. W. Caswell; Sherbrooke, Que., Robt. Ness, and Geo. G. Stewart; Charlottetown, P. E. I., Hon. J. C. Richards. A pleasing feature of the meeting was the unanimous passing of the motions making Wm. Smith, M. P., and Dr. J. G. Rutherford, life members of the Association. Mr. Smith in replying heartily thanked the members for the honor. He had been a member of the Society since its inception, and with the exception of a year or two had been on the directorate, and believed he had always done his best in advancing the Society's interests, and to-day the banner position held by the Clydesdale Association made him doubly thankful, and doubly proud to be made a life member. A motion was passed to the effect that in the opinion of this meeting the time had arrived when, in the best interests of the live-stock breeders of Canada and of the Dominion in

general, there should be established a great National Exhibition, at which the products of the farm might be brought together from every part of the Dominion, thereby placing before the world an exhibit of the agricultural resources of the country that could not be brought about in any other way, and that a committee be appointed to take the initial steps for the carrying out of the same. A number of gentlemen from the various provinces spoke to the question, and all were unanimous in the belief that great good could be accomplished, and promised their hearty support.

Enthusiastic Sheep Breeders.

One of the largest meetings in the history of the Ontario Sheep Breeders' Association was held in the Walker House, Toronto, Thursday evening, Feb. 6th. President Lt.-Col. Robert McEwen, of Byron, Ont., drew attention to the fact that a year ago sheep breeding offered comparatively poor prospects, but that during the past year there had been a change, and that lambs never sold higher on Toronto market in January than in January 1913. Every farmer could well afford to keep a flock of sheep to keep down weeds, and he urged that housekeepers pay more attention to mutton and lamb in connection with the economy of the home table.

A committee consisting of J. D. Brien, James Douglas and H. Noel Gibson, was appointed to wait on the Ontario Minister of Agriculture to see what could be done towards the furtherance of sheep breeding in this Province. A scheme for advertising Ontario sheep in the West was adopted.

The following directors were elected representing the various breeds; Cotswolds—J. D. Brien, Ridgeway; Lincolns, J. T. Gibson, Denfield; Leicesters—James Douglas, Caledonia; Oxfords—Harry Arkell, Teeswater; Shropshires—J. G. Hammer, Burford; Southdowns—C. Hodgson, Brantford; Dorsets—James Robertson, Milton; Hampshires and Suffolks—Geo. Teller, Paris. General Directors—Herbert Lee, Highgate; D. J. Campbell, Woodville. Representatives to fair boards Canadian National—R. H. Harding, Thorndale, London—James Snell, Clinton, and John Kelly, Shakespeare; Ottawa—W. A. Wallace, Kars.

The president is to be elected by the directors. The financial statement showed a balance on hand of \$940.34, an increase of \$426.62 over the amount in the treasury a year ago.

Hackney Men Meet.

The twenty-first annual meeting of the Canadian Hackney Horse Society was held at the Prince George Hotel, Toronto, Wednesday, Feb. 5th, immediately following a complimentary banquet tendered the members of the society and invited guests from both sides of the lines by the President, J. W. Allison, of Morrisburg, Ont. Closely following so happy an event, the members were in a most optimistic frame of mind, and the president's address was most satisfactory as evidencing the increasing popularity of the Hackney as the ideal of all harness horses, and as showing the steady and increasing growth and influence of the society. The financial report showed a total of receipts for 1912 of \$2,026.70 and a cash balance on hand, after the year's business, of \$1,041.12, and a total of assets over liabilities of \$2,101.70. A motion was passed to the effect that a committee be appointed to wait on the Minister of Agriculture, at Ottawa, asking that the Hackney stallion be placed on the same footing as the Thoroughbred, in the matter of selection and bonusing for the production of army re-mounts, it being the unanimously expressed opinion that the pure-bred or Hackney cross was without a peer for saddle purposes. The election of officers resulted as follows: Hon. President—Hon. Robt. Beith, Bowmanville; President—J. W. Allison, Morrisburg; Vice-President—A. E. Yeager, Simcoe. Directors—Geo. Pepper, Toronto; Robt. Graham, Bedford Park; T. A. Graham, Claremont; E. Watson, Hudson Heights, Que.; H. Boag, Barré; E. C. H. Tisdale, Beaverton, and E. W. McLean, Brockville. At the subsequent meeting of the directors, it was decided to place all the Provinces on an equality in the matter of distribution of competition medals and grants.

Jersey Breeders' Annual.

About thirty admirers of the cream-producing Jersey gathered in annual meeting in the Prince George Hotel, Toronto, Feb. 7th. The secretary's report showed that the breed is making steady progress in Canada, there being at the present time a balance on hand of \$1,669.14 as compared with \$1,541.15 a year ago, and registrations in 1912 numbered 850 as against 715 in 1911. The secretary believed that if cost of production were considered, the Jersey would lead all breeds. The first volume of the Canadian Jersey Herd Book is now in the hands of the

printers. Jersey men believe that no cow should enter the National R.O.P. unless she is registered in the Canadian National records and unless she gives milk testing up to three per cent. fat, the amount required by the commercial trade. A resolution was drafted asking for a meeting of representatives of the various dairy breeds to rearrange the rules governing R.O.P. The committee appointed consisted of B. A. Bull, J. McCulloch, Jas. Baggs and R. Reid. A resolution censuring the Board of the Guelph Winter Fair, for cutting down the number of points allowed for butter fat in the dairy test, was discussed and passed by a unanimous vote. Officers elected: President—David Duncan, Don, Ont.; Vice-Presidents—D. O. Bull, Brampton, Ont.; S. J. Lyons, Norval Station, Ont.; H. W. Edwards, Que.; R. B. Pipes, Amherst, N.S., and W. V. Edwards, Souris, Man. Directors, E. Duncan, Don, Ont.; R. J. Fleming, Toronto; B. A. Bull, Brampton; H. A. Dolson, Norval, and F. L. Green, Greenwood.

R. Reid, of Berlin, who is leaving the country, was reappointed secretary-treasurer until he leaves.

Representative to Toronto Fair—B. A. Bull; to London—H. Tozier; to Ottawa—W. B. Herdman.

The sum of \$25 was granted to the fairs at Winnipeg; Victoria, B. C.; Chatham, N. B.; London, Ont.; Regina, Sask.; Edmonton, Alta., and \$200 to Toronto and \$25 to Guelph, provided the winning cow is a Jersey; \$75 to be added to this by individual members.

Dominion Sheep Breeders Optimistic.

If attendance at the annual meeting is any criterion of the state of sheep breeding in Canada, this branch of live-stock husbandry must be commencing to interest more agriculturists. Col. McCrae, of Guelph, Ont., President of the Dominion Sheep Breeders' Association, in his address at the meeting held in the Temple Building, Toronto, Feb. 7th, reiterated the statement so often made, that sheep pay well where they are carefully cared for. He termed it lamentable that sheep had been decreasing in this country during late years, and that a great agricultural country like Canada was obliged to import mutton.

The chief subject for discussion was the sending of sheep from Ontario to British Columbia and the Maritime Provinces during the past season. Financially, the scheme was not profitable, but no doubt the "missionary" work done will increase sheep breeding in the sections where sales were held. The number purchased for these sales was 1,202 ewes (all grades) and 544 pure-bred rams of ten different breeds. Of these sheep 127 rams and 979 ewes were sold in the West at \$9,297.25 and 410 rams and 191 ewes were sold in the East at \$5,008.60, the total loss being \$587.91. Prices were not high, but the committee did not expect that they would be, and the Dominion Government, co-operating with the sheep breeders, did a good work in introducing these higher-quality sheep into districts well suited for sheep breeding. The committee, consisting of Lt.-Col. Robert McEwen, of Byron, Ont.; R. H. Harding, Thorndale, Ont., and Lt.-Col. D. McCrae, Guelph, were appointed to continue the work.

Dr. Couture, of Quebec, was present on behalf of the Quebec sheep breeders asking that his Province get five members on the board of directors. Previous to this time all directors had come from Ontario, and Quebec, having more members than this Province, asked for representation. Four Quebec breeders were elected.

Registrations according to Provinces during 1912 were: Ontario, 1,972; Man., 149; Sask., 93; Alta., 324; B.C., 77; Que., 927; N.B., 35; N.S., 41; P.E.I., 71; and U.S., 286. Ontario has 187 members; Man., 11; Sask., 5; Alta., 22; B.C., 7; Que., 192; N.B., 7; N.S., 9; P.E.I., 3, and U.S., 5.

Registrations by breeds in 1912 were as follows: Shropshires, 1,418; Leicesters, 906; Oxfords, 476; Southdowns, 176; Cotswolds, 232; Lincolns, 68; Suffolks, 204; Hampshires, 112; Dorsets, 88, and Cheviots, 3.

The financial statement showed cash on hand to the amount of \$14,976.41 as against \$2,692.39 a year ago.

Officers elected: President—J. E. Cousins, Harriston, Ont.; Vice-President—H. N. Gibson, Delaware, Ont. Directors by breeds: Cotswolds—John Rawlings, Forest, Ont.; Leicesters—James Snell, Clinton, Ont.; Lincolns—L. Parkinson, Guelph, Ont.; Oxfords—J. Dion, St. Sebastien, Que.; Shropshires—A. Deris, St. Norbert, Que.; Southdowns—Col. McEwen, Byron, Ont.; Dorsets—R. H. Harding, Thorndale, Ont.; Hampshires—James Bryson, Brysonville, Que.; Suffolks—P. Sylvestre, Que. O.A.C. director—Prof. G. E. Day, Guelph. General Directors: A. W. Smith, Maple Lodge, Ont.; and D. J. Campbell, Woodville, Ont. Vice-Presidents, by Provinces: B.C.—A. E. Davey, Ladners; Alta.—Bryce Wright, De W n-

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ton; Sask.—J. A. M. Patrick, Yorkton; Que.—H. E. Williams, Knowlton; N. B.—Col. Campbell, N.S.—Stanley Logan; P.E.I.—Albert Boswell, Representative to Toronto Fair—W. A. Dryden, Brooklin, Ont.; to London—Robt. McEwen and R. H. Harding; to Ottawa—J. C. Stewart, Dalmeny, Ont., and John Paul Russell, Ont.; Ontario Winter Fair—Col. McEwen, J. E. Cousins, A. W. Smith, and L. Parkinson; Ottawa Winter Fair—J. E. Cousins, W. A. Wallace, Kars; J. T. Ferguson, Renfrew, and James Bryson.

Banquet to Stockmen.

One of the most enjoyable events of the entire livestock week in Toronto was the complimentary banquet given by the "Canadian Farm" to the stockmen at McConkey's, Tuesday evening, February 4th. About 200 plates were laid and the menu comprised delicacies fit for kings, from the soups to the desserts. After all had generously partaken of the rich repast the "weeds" were lighted and a rare treat was the toast list, among the most prominent speakers being the Hon. Martin Burrell, Minister of Agriculture for the Dominion, Hon. Geo. P. Graham, ex-minister of Railways, Dr. C. C. James, Wm. Smith, M. P., and many of the prominent present-day stock-breeders. All the speeches showed a spirit of optimism regarding the outlook for stock husbandry and interspersed with some high class vaudeville, made a pleasant and profitable evening. W. Moore, President of the "Canadian Farm," as toastmaster, excelled himself. His genial manner and ready flow of wit made him an admirable host. Success marked every proceeding and the management are to be congratulated.

Winter Observations.

BY PETER MCARTHUR

Have you ever noticed how the sounds carry on some winter mornings? One day last week we had a few hours when I felt as if I were eaves-dropping on the whole country-side. The air was very still and judging from the way the smoke fell to the ground it was very light. When I went out to do the chores I was struck at once by the clearness with which I could hear things going on. I could hear the neighbors talking to their cattle and somewhere about a mile away an angry man was reasoning with an impertinent pig. I could hear what he said to the pig and what the pig said to him and judging by what the pig said I think the man must have kicked him while pouring swill into the trough. Every sound started an echo that went bounding over the fields. I could hear a train moving on the Michigan Central Railroad twelve miles away and almost imagined I could hear the people in the town three miles off frying their breakfast bacon and grumbling about the high cost of living. I understand that the carrying quality of the air is due to its being thin or rarified. According to the papers some inventor has increased the power of the telephone by having the air in the receiver warmed by some new device. The principle on which he works is probably the same as prevailed on this particular morning. The ease with which sounds carried was due to the condition of the atmosphere and that reminds me that at other times the air must be very heavy and dead. Anyway, I know that there are days when I cannot make a boy in the next room hear that the wood-box is empty even when I yell at the top of my voice. Now that must be due to the condition of the atmosphere, and I have noticed that the best way to overcome the difficulty is to warm things up.

In all the talk about trusts and mergers has anyone heard about the formation of a lamp-chimney trust? I don't know but I am very suspicious that there is one operating in this fair Canada of ours. For some months past we have been buying lamp and lantern chimneys about as regularly as we have been buying oil. The first few times that chimneys broke we thought it was because the wicks were not properly trimmed or because the light had been turned up too quickly, but now that we are exercising the utmost care the breakage goes on just the same. Chimneys fly to pieces as if they were bewitched and a few nights ago after going to bed I heard the lamp chimney crackling and next morning found it cracked to pieces. Now, I am not superstitious enough to think that those chimneys are bewitched. They are simply made of inferior glass and are not properly finished. They have not been properly tempered or annealed. As a consequence the slight heating by the flame in the lamp breaks them, or the cooling after the light has been blown out. Now, all this points towards the existence of a trust in the lamp-chimney business. As soon as competition is done away with those who control the market turn out the cheapest product they can make and sell it at the highest price. The more chimneys that break the better it will be for the manufacturers, for they can sell more. Of course I may be wrong and there may not be a trust, but I'd like to know what has become of the lamp chimneys that the hardware men used to throw on the floor to show how tough they were. I remember that peddlers used to go through the country demonstrating the quality of their lamp and lantern chimneys by throwing them across the room when the door was opened for them. Don't they make any glasses of that kind any more? If there isn't a trust at work, something has gone wrong, for lamp chimneys are not what they used to be.

In my reading this week I came across two quotations that should furnish food for thought to all of us. The St. Thomas Times credits Premier Borden with having said:

"The Government must rule the Railways, or the Railways will rule the Government."

In his speech on the Bank Act in Parliament last week, Dr. Clarke of Red Deer gave this quotation from "Canada To-day," a book by J. A. Hobson, a noted English political economist:

"It is a sad fact to which the farmers and workmen of Canada will one of these days waken up, that they are owned, body and soul, by a few bankers, a few manufacturers, a few lumbermen and a few railway magnates."

In addition to these warnings Mr. Emmerson stated in a speech before Parliament that the transportation, financial and industrial corporations of Canada are controlled by twenty men. Although he did not give the list of names in his speech he gave it to the press and the papers have given us portraits of our real rulers. At first I was surprised to find that Sir Jingo McBore was not mentioned in the list, but after thinking it over I decided that that was because Sir Jingo bosses the twenty. Anyway, it is an interesting state of affairs in a country, the vast majority of whose voters are workmen and farmers. I was particularly interested to find that the first name on the list was that of a Conservative and the second that of a Liberal. While I do not know the political bias of all these men I imagine they would divide up about equally between the two parties. When it comes to High Finance political opinions are not of much importance. It is only the people who bear the burdens who have political faith and live up to it—their own undoing.

When the school-children brought home the news that a fox had been seen in the neighborhood I thought a mistake must have been made. It is many years since a fox has been heard of in these parts. But when walking to the post-office yesterday I took to the woods so as to be sheltered from the frosty wind and was surprised to find the once-familiar tracks. At first I thought they must be those of a small dog, but when I followed them and found that a stop was made every once in a while to dig out a mouse I was convinced that we have a fox visiting us. What if it should be a black fox that has escaped from some fox farm? Wouldn't there be excitement if such a story as that should get started! Almost anyone would turn out to chase a skin worth a couple of thousand dollars. Of course that is impossible, but one never knows what may happen. A few years ago a coyote that had escaped from Belle Isle located itself in a neighboring township and killed scores of sheep, almost bankrupted the council and ruined the reputations of dogs for miles around before it was finally discovered and shot. Now a coyote in this district is just as unlikely a creature as a black fox. I think I shall go through the woods on my way to the post-office to-day in the hope of getting a glimpse of the visitor. If I were fifteen years of age and had a good dog and a gun I could convince myself that that is a black fox, and would not rest until I had run him down. But years make us skeptical and I am afraid it is only a mangy red fox whose skin would hardly be worth stripping off. As yet he has respected the hen-roosts of the neighborhood, but the cold weather may make him hungrier and bolder.

There seems to be something wrong about Mr. Glendinning's criticism of telephone and rural free delivery at the recent meeting of the Grange. It seems like flying in the face of progress at a time when everyone is insisting that we might as well be dead as unprogressive. I have avoided the telephone myself, chiefly because I got tired of it in the city and did not want anyone to call me up to talk things over unless I wanted to talk. I have always sympathized with the British in their attitude to the telephone. The best families may have one in the kitchen to make ordering supplies, easy, but they refuse to be disturbed by it themselves. When a Britisher goes to his home he wants it distinctly understood that his home is his castle, and when he takes up the drawbridge and lets down the portcullis no one can intrude on him without his permission. I have a very distinct recollection of having an interview with an English business man, and while we were talking the telephone bell on his desk began ringing. Instead of stopping to hear what was wanted he reached out and took the receiver from the hook and placed it on his desk so as to stop the ringing. He would not allow anyone to reach him by the telephone any more than he would be letting them enter through the door of his office while he was keeping an engagement. As a contrast to this I remember an advertising man in New York telling me with much glee of being refused admission to a business man and instead of being discouraged he went to the nearest telephone booth, called the man up, submitted his proposition and got his order. We people of the new world lack the necessary poise to use the telephone properly. When the bell rings we are consumed with curiosity until we know who is speaking and what is wanted. It is also a rule in the best clubs of London that no member can be called up by telephone. When a man goes to his club or his home he does not allow himself to be disturbed unnecessarily. If we could learn the British method of using the telephone only when we need it, instead of using it for gossiping and all kinds of nonsense, and instead of being slaves to its constant ringing, there would be no good ground for objecting to it. There are still a few things that we can learn from the people in the Old Country.

The Ontario Department of Agriculture on Saturday last shipped to New Ontario five purebred Shorthorn bulls to be located respectively near New Liskeard, Thornloe, Hanbury, Hailebury, and Monteith, where their services will be utilized under the direction of local live-stock improvement associations.

Ontario Fairs and Exhibitions Ass'n.

The annual meeting of the Ontario Fairs and Exhibitions Association was held in the Foresters' Hall, Toronto, February 5th and 6th. The President Dr. J. W. Simmons in his address referred to the increased attendance and interest displayed by the members from year to year and commended again standing field-crop competitions and the work in pure-seed grain which is being accomplished by the Department under J. Lockie Wilson. He foresaw the time when the Provincial Government would have a branch established to handle the sale of this pure seed.

The wet weather insurance which agricultural societies may take advantage of if their show falls on a bad day has done untold good and saved many societies from financial loss. The Department judging system and Stallion Enrolment are meeting with favor, but stallion inspection should be made compulsory. He believed the grant should be increased from \$75,000 to \$100,000 to this Association. Gigantic efforts are to be made to increase the agricultural population of the country.

SUPERINTENDENT'S REPORT.

The report of Superintendent J. Lockie Wilson showed progress all along the line.

In 1911 the total appropriation of \$10,000 was required to recoup societies to the extent of 50% of their losses in gate receipts. The total then applying for help was 108 Societies and many of them received the maximum apportionment of \$300. In 1912 53 Societies made application, only one receiving the maximum of \$300, and the total amount required was \$4,155. The \$10,000 grant is now a separate grant and is not taken from the \$75,000 Government grant. Judges from the department to the number of 324 were sent out the past season being 24 more than in 1911 and only 8 complaints were heard regarding their work. It has been suggested that all judges should be trained in short courses conducted by experts.

One hundred and fifty-three Societies competed in the standing field-crop competitions in 1912. There were 3,000 competitors with an acreage of 30,000. The grain was a good sample although colored by rain. Over 500 bushels of this prize grain have been distributed to the county agricultural specialists. The first 170 Societies which make application in 1913 will be those allowed to enter and the first five prize winners will be eligible to compete at the Canadian National at Toronto, at Ottawa and at Guelph and Ottawa winter fairs.

Competitors in a Society should sow their grain as nearly the same time as possible, and it is contrary to the rules to enter in more than one Society.

Considerable trouble has been experienced with gamblers on show grounds. Private detectives from the Department made 30 arrests last season and fines amounting to nearly \$500 were imposed.

Mr. Wilson advocated the buying of lumber to make seats around the judging rings of the smaller fairs and also the placing of plenty of seats on other parts of the grounds. Bee demonstrations have helped to encourage that industry.

Good directorates are essential to success, and school children should be encouraged to attend and to compete. Wet seasons have demonstrated the need of good and properly drained roadways and walks. Managements should see that everything runs smoothly, on time and is clearly announced. He recommended that all prize grain be retained by the Societies to be distributed among the members and returned the following season.

DISCUSSIONS

The work of school fairs was very thoroughly discussed by F. C. Hart, District Representative in Waterloo Co., Ontario. Poultry, eggs, weeds, grains etc., were features of these fairs.

It was charged that our large exhibitions are neglecting the small farmers, the light showing of stock at Toronto and London in 1912 being cited. In Nova Scotia special efforts are made by the associations to interest the prospective exhibitors by the fair representatives going through the country calling on the farmers.

A resolution was adopted asking the Dominion Minister of Agriculture to make a special \$25,000 grant to Ontario agricultural societies.

Prof. Crow of the O. A. C. appealed for a revision of fair prize lists with a view of making these really educational so far as apple production is concerned. There should, he said, be two classes and two classes only—dessert varieties and commercial varieties, and these varieties should be of a kind suited to the particular district in which a fair is held.

McIntosh Red, Snow, and Spy are three varieties which Prof. Crow said grow better in Ontario than anywhere. He also advocated prizes for unnamed seedlings.

Mr. Gaby outlined the possibilities of electricity on the farm, citing the case recently described in this paper of Geo. Raymond and Son, Ingersoll.

A resolution asking for the removal of the duty on ditching machines was adopted, and the classification of horses at the shows also came in for much discussion.

Officers elected:—President, Dr. W. A. Crow, Chesley; 1st Vice-President, J. C. Stewart, Dalmeny; 2nd Vice-President, Wm. Scarf, Durham; Secretary, J. Lockie Wilson, Toronto; Treasurer, Alex. McFarlane, Otterville; Directors—District 1, J. A. Fraser, Prescott; District 2, G. C. McLean, Brockville; District 3, R. H. Ketcheson, Belleville; District 4, George Williamson, Beaverton; District 5, W. H. Hammell, Beeton; District 6, J. E. Peart, Hamilton; District 7, W. Holmes, Otterville; District 8, W. A. McKenzie, Mitchell; District 9, J. H. Bernard, Petrolia; District 10, John Clancy, Cargill; District 11, B. Laycock, Gravenhurst; District 12, S. M. Fawcett, Sault Ste. Marie, and T. S. Woolings, of Englehart.

MARKETS.

Toronto.

REVIEW OF LAST WEEK'S MARKETS
At West Toronto, on Monday, Feb. 10, receipts of live stock numbered 78 cars, comprising 1,401 cattle, 102 hogs, 324 sheep and lambs, and 78 calves; no business being transacted. Packers quote hogs at \$8.75 fed and watered, and \$8.40 f. o. b. cars.

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

Table with 3 columns: City, Union, Total. Rows for Cars, Cattle, Hogs, Sheep, Calves, Horses.

The total receipts at the two markets for the corresponding week of 1912 were as follows:

Table with 3 columns: City, Union, Total. Rows for Cars, Cattle, Hogs, Sheep, Calves, Horses.

The combined receipts of live stock at the two markets for the past week show an increase of 119 carloads, 1,869 cattle, 756 hogs, 696 sheep and lambs, 218 calves, and 47 horses, compared with the corresponding week of 1912.

Receipts of live stock at the two markets for the past week were moderate. In the fat-cattle classes, the supply was quite equal to the demand. Trade was active on Tuesday, but gradually became easier for the remainder of the week, that is for cattle, and prices on Thursday were from 15c. to 20c. per cwt. lower for all classes, excepting the choice picked lots of butchers'. Sheep, lambs, and calves, were in demand, as well as hogs, and more would have sold at the prices quoted.

Exporters.—There was no demand for export cattle to ship, but about seven or eight carloads of cattle of export weights and quality were sold to the local and Montreal abattoirs. These weighed from 1,150 to 1,400 lbs., and sold from \$6.75 to \$7.15 per cwt., by the load, and one lot of ten prime steers brought \$7.20.

Butchers'.—Choice butchers' cattle sold at \$6.40 to \$6.75; loads of good, \$5.85 to \$6.25; medium, \$5.40 to \$5.70; common, \$4.50 to \$5.25; cows, \$3.50 to \$5.50; canners, \$2.50 to \$3; bulls, \$3.75 to \$5.75.

Stockers and Feeders.—Feeders of good weights, 950 to 1,000 lbs. each, sold at \$5.40 to \$5.80; stockers, 750 to 850 lbs., at \$5 to \$5.40.

Milkers and Springers.—Trade in milkers and springers was slow, and only the choice-quality cows were being looked for. Prices ranged from \$40 to \$65 for the bulk; and a few extra choice brought \$70 to \$75.

Veal Calves.—The market for calves was higher. Common, rough, heavy calves, sold at \$4.50 to \$6; medium, at \$7 to \$8; good, \$8.50 to \$9, and choice, \$9.50 to \$10 per cwt.

Sheep and Lambs.—The demand for sheep and lambs was strong, and greater than the supply, for lambs. Lambs sold from \$8 to \$9.50 per cwt. Sheep—Ewes sold from \$5 to \$6; rams, \$4 to \$5 per cwt.

Hogs.—More hogs would have been taken at the prices quoted. Selects, fed and watered, sold at \$8.75 to \$8.85, and \$8.40 to \$8.50, f. o. b. cars at country points. Heavy, fat hogs, were out in prices, \$8.25 being the figure. Sows sold at \$7 to \$7.25, and stags at \$5.

Horses.—Receipts at the Union Horse Exchange were fairly liberal last week, there being 102 fresh arrivals. Trade was fair, but not any too brisk. Shipments of one car each to North Bay, and Montreal, were made. The bulk of the business done was local demand. Prices ranged as follows: Drafters, \$260 to \$275; general-purpose, \$160 to \$210; wagon horses, \$160 to \$225; drivers, \$100 to \$175; serviceably sound, \$80 to \$100 each.

BREADSTUFFS.

Wheat.—Ontario, No. 2 red, white or mixed, 95c. to 96c., outside; inferior grades, down to 70c. Manitoba, No. 1 northern, 96c.; No. 2 northern, 93c., track, lake ports; feed wheat, 66c., lake ports. Oats—Ontario, No. 2, 33c. to 34c., outside; 38c., track, Toronto. Manitoba, No. 2, 41c.; No. 3, 39c., lake ports. Rye—No. 2, 68c. to 70c., outside. Peas—No. 2, \$1.15 to \$1.20, outside. Buckwheat—51c. to 52c., outside. Barley—For malting, 60c. to 63c.; for feed, 40c. to 50c., outside. Corn—No. 3 yellow, 56c., track, Toronto, all-rail shipment. Flour—Ninety-per-cent. Ontario winter-wheat flour, \$3.95 to \$4.05, seaboard. Manitoba flour—Prices at Toronto are: First patents, \$5.80; second patents, \$4.80; in cotton, 10c. more; strong bakers', \$4.60, in jute.

HAY AND MILLFEED.

Hay.—Baled, car lots, track, Toronto, \$12.50 to \$13.50 for No. 1, and \$10 to \$11 per ton for No. 2.

Straw.—Baled, car lots, track, Toronto, \$9 to \$10 per ton.

Bran.—Manitoba bran, \$19 to \$20 per ton; shorts, \$22 to \$23; Ontario bran, \$19 to \$20, in bags; shorts, \$22 to \$23, car lots, track, Toronto.

TORONTO SEED MARKET.

Alsike No. 1, per bushel, \$11.50 to \$12.50; alsike No. 2, per bushel, \$10.50 to \$11; alsike No. 3, per bushel, \$9.50 to \$10; red-clover seed, Ontario-grown, \$7 to \$9 per bushel; timothy No. 1, per bushel, \$1.90 to \$2.25; timothy No. 2, per bushel, \$1.25 to \$1.60.

COUNTRY PRODUCE.

Butter.—Market steady. Choice creameries, 32c. to 34c. for pound rolls; creamery solids, 30c.; separator dairy, 28c. to 30c.; store lots, 24c.

Eggs.—Strictly new-laid, 28c.; cold-storage, 18c. to 22c. On the St. Lawrence market, from farmers' wagons, eggs sold at 30c. per dozen, by the basket, and 32c. to 35c., retail.

Cheese.—Large, 14c.; twins, 15c. per pound.

Honey.—Choice, extracted clover honey, 12c. per lb.; combs, \$2.75 to \$3 per dozen.

Beans.—Broken car lots sold at \$2.50 to \$2.55 for primes, and \$2.60 to \$2.65 for hand-picked.

Potatoes.—Car lots of Ontarios, 65c.; New Brunswick Delawares, 80c. to 85c. per bag, track, Toronto.

Poultry.—Receipts moderate, and prices firm. Turkeys dressed, 25c.; geese, 18c.; ducks, 22c.; chickens, 17c. to 19c.; hens, 14c. to 15c.

HIDES AND SKINS.

No. 1 inspected steers and cows, 13c.; No. 2 inspected steers and cows, 12c.; city hides, flat 12c.; country hides, cured, 12c.; country hides, green, 10c. to 10 1/2c.; calf skins, per lb., 14c.; lamb skins, \$1 to \$1.40; horse hides, No. 1, \$3.50 each; horse hair, per lb., 37c.; tallow, No. 1, per lb., 5 1/2c. to 6 1/2c.

FRUITS AND VEGETABLES.

Apples of good quality are scarce and dearer. Spies, No. 1, \$3.75 to \$4 per barrel; No. 2 Spies, \$3 to \$3.50; Greenings, \$2.75 to \$3 per barrel; Kings, No. 1, \$4 per barrel; Baldwins, \$3 to \$3.25; cabbage, per barrel, \$1; beets, 75c. per bag; turnips, 40c. to 50c. per bag; parsnips, 60c. to 75c. per bag; Florida strawberries of choice quality retailed at 50c. per quart basket.

Buffalo.

Cattle.—Prime steers, \$8.25 to \$8.50; butchers', \$5.75 to \$8; bulls, \$5 to \$6.75; stock heifers, \$4 to \$4.50; shipping, \$7.25 to \$8; heifers, \$4.75 to \$7.50; cows, \$3.25 to \$6.75; stockers and feeders, \$4.50 to \$6.50; fresh cows and springers, \$35 to \$80.

Veals.—\$4 to \$12. Hogs.—Heavy, \$3 to \$8.20; mixed, \$8.20 to \$8.30; Yorkers and pigs, \$8.25 to \$8.35; roughs, \$7.20 to \$7.30; stags, \$5.50 to \$6.50; dairies, \$8 to \$8.80.

Sheep and Lambs.—Lambs, \$6 to \$9.40; yearlings, \$5 to \$8.50; wethers, \$5.75 to \$6.35; ewes, \$3.50 to \$5.50. Sheep—Mixed, \$5.50 to \$5.75.

British Market.

John Rogers & Co. report Irish steers making from 13 1/2c. to 15c. per pound.

Montreal.

Live Stock.—The Lenten season being now here, demand for cattle and other live stock is not as good as previously. Prices, however, continue firm, owing to light supplies. Some choice stock sold at 7c. per lb., but the bulk of the trading was done at 6 1/2c. to 6 3/4c., this being the range for fine stock. Good cattle sold at 6 1/2c. to 6 3/4c., medium at 5 1/2c. to 6c., and common at 4 1/2c. to 5 1/2c. Lower grades ranged down to 3c. per lb. Lambs sold at 7c. to 7 1/2c. per lb., and sheep at 4c. to 5c. Calves were in moderate demand, at \$8 to \$12 each, according to quality. Hogs were firm, and prices ranged from 9 1/2c. to 9 3/4c., as a rule, though some stock brought 9 1/2c., weighed off cars.

Horses.—Dealers report a slight improvement in the demand. Not many horses are offering, and prices hold firm. Heavy draft horses, 1,500 to 1,700 lbs. each, \$300 to \$400; light draft, 1,400 to 1,500 lbs., \$225 to \$300; light horses, 1,000 to 1,100 lbs., \$125 to \$200 each; broken-down horses, \$75 to \$125, and choice saddle and carriage animals, \$350 to \$500 each.

Poultry.—Some interest is still being displayed in the poultry market. Prices around 21c. to 22c. per lb. for turkeys; ducks, and chickens, 14c. to 17c.; fowl, 11c. to 13c., and geese, 18c. to 14c. per lb. for best.

Dressed Hogs and Provisions.—A steady demand for hogs, all offerings being taken at 13c. to 13 1/2c. per lb. for abattoir-killed, and country-dressed, at 12 1/2c. to 12 3/4c. for light, and 11 1/2c. to 12 1/2c. for heavy. Pure lard, 14c. to 15c. per lb., and compound at 9 1/2c. to 9 3/4c. Extra large hams, 15c. per lb., and mediums, 17c., while bacon was 19c. per lb., and up to 21c. for best.

Potatoes.—There has been a slight easing off in prices of potatoes, and quotations on Green Mountains are now 70c. to 75c. per 90 lbs., track, while Quebec grades are 65c. to 70c.

Eggs.—The milder weather, and the offerings of American fresh eggs, have conspired to put down the price, and as a result purchases could be made at 34c. to 36c. per dozen, for really fresh-laid stock. Dealers could not get more than 22c. to 25c. for the select held stock, and 20c. to 21c. or 22c. for No. 1, while second grades would sell at 15c. to 17c.

Syrup and Honey.—Prices are: 8c. to 10c. per lb. for syrup in tins, and 7c. to 8c. in wood; sugar, 9c. Honey, 16c. to 17c. per lb. for white-clover comb, and 14c. to 15 1/2c. for dark; 11c. to 12c. for white extracted, and 8c. to 9c. for dark.

Butter.—Market quite interesting, owing to receipts here from New Zealand. However, the imports are said not to be for local consumers, but for the West. In any case, they have affected the price of butter locally, and purchases could be made at 29c. to 30c. for best stock. Fresh makes were not in favor, and could be had at 25c. to 26c., and dairy butter at about 23c. to 24c. per lb.

Grain.—A good deal of activity in oats; prices of No. 2 Canadian Western, 42c. to 42 1/2c. per bushel, carloads, ex store; extra No. 1 feed, 41c. to 42c., and No. 3 Canadian Western and No. 1 feed, 40c. to 41c.; No. 3 yellow corn, 60c. per bushel, and Ontario malting barley, 76c. to 80c. per bushel.

Flour.—The market is holding steady, being \$5.40 per barrel for Manitoba patents, firsts; \$4.90 for seconds, and \$4.70 for strong bakers', in wood. Ontario, winter patents, \$5.25 in jute, per barrel, and \$4.85 to \$4.90 for straight rollers.

Millfeed.—Sales of bran reported at \$20 per ton, in bags, while shorts were \$22, and middlings \$27 per ton. Pure grain mouille was \$85 to \$86, and mixed \$30 to \$33.

Hay.—The hay market appears a little uncertain, but prices show little change, apparently, being around \$14 to \$14.50 per ton for No. 1, \$13 to \$13.50 for No. 2, and \$12 to \$12.50 for No. 3 ordinary. No. 3 and clover, about \$10 to \$11.

Hides.—Market very dull and steady. Beef hides, 12 1/2c., 13 1/2c. and 14 1/2c. per lb. for Nos. 3, 2 and 1; calf skins, 14c. and 16c. for Nos. 2 and 1, and sheepskins, \$1 to \$1.10 each. Horse hides, \$1.75 and \$2.50, and tallow, 6c. to 6 1/2c. per lb. for refined, and 1 1/2c. to 3c. for rough.

Chicago.

Cattle.—Beoves, \$6.50 to \$8.00; Texas steers, \$4.90 to \$5.70; steers and feeders, \$4.75 to \$7.60; cows and heifers, \$3 to \$7.40; calves, \$6.50 to \$10.25.

Hogs.—Light, \$7.85 to \$8.15; mixed, \$7.80 to \$8.15; heavy, \$7.65 to \$8.12; rough, \$7.65 to \$7.80; pigs, \$6.65 to \$7.90.

Sheep and Lambs.—Sheep, native, \$4.85 to \$6.15; yearlings, \$6.50 to \$7.90. Lambs, native, \$6.90 to \$9.

Gossip.

Sir George Cooper, Bart, Hursley Park, England, has recently sold to Messrs. Hickman & Scruby, for shipment to a client in Brazil, five choice yearling Aberdeen-Angus bulls.

The annual report of the Clydesdale Horse Society of the United Kingdom, shows a membership of 2,193, and a prosperous trade. The exports of last year were 1,348, of which 1,160 came to Canada.

William Duthie, Collynie, Aberdeenshire, is reported to have recently sold to F. Miller, Berkenhead, England, the noted Argentine exporter, seven choice heifer calves of last year. Mr. Miller does not, it is stated, intend to send these abroad, but to retain them as the foundation stock of a new British herd.

One hundred and two Clydesdale stallions, up to February 1st, 1913, have been hired for the season of this year by as many district societies in Great Britain, as compared with 94 last year, 80 in 1911, and 82 in 1910. The annual Glasgow Stallion Show takes place early in this month, when more engagements will probably be made.

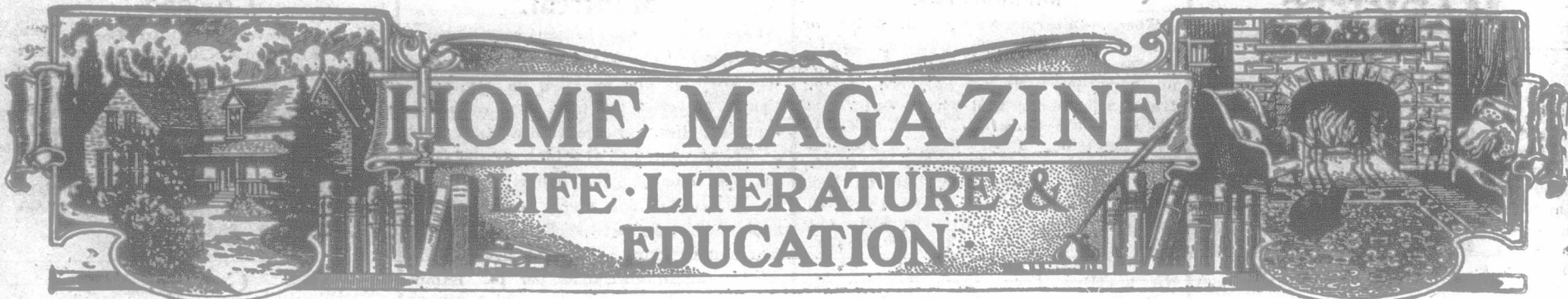
The auction sale of 21 head of registered Shorthorns, 15 cows and heifers, and 6 young bulls, property of Andrew Kersell & Sons, St. George, Ont., to take place Feb. 19th, as advertised, should attract the attention of intending buyers. The terms of sale are easy. Morning trains will be met at St. George and Brantford Stations, G. T. R.

The great auction sale of 100 head of Holsteins, the property of Messrs. Monro & Lawless, to take place at Thorold, Welland Co., Ont., on Tuesday, February 25th, will afford a rare opportunity for dairy farmers to secure high-class stock at their own price. Fifty-five cows and heifers of milking age, ten yearling heifers, five choicely-bred bulls, and five choice grades in milk, should attract buyers from far and near.

W. W. Hogg, of Thamesford, Ont., whose advertisement runs in these columns, informs us that he has sold all his Shorthorns to W. E. Butler, of Alberta. This herd was founded in 1880, and has been disposed of to make room for more Clydesdales, as Mr. Hogg intends to make this breed of horses his specialty in the future. Some high-class Clydesdales are now on hand. See the advertisement in another column.

Having sold their farm, J. & E. Chinnick, Eberts, Ont., near Chatham, will sell their herd of Shorthorns, on Tuesday, Feb. 25th, 1913. The foundation of their herd was Duchess of Gloster A. and Butterfly 49th, imported by Hon. M. H. Cochran, of Hillhurst, and bought at his dispersion sale. Among the sires used in the herd are Prince of the Forest (imp.), and Pride of Morning, by Imp. Joy of Morning. Prince of the Forest was imported by Robt. Miller, Stouffville. After used three years was sold to J. A. Countryman, Rochelle, Ill., to head his fine herd. Five young bulls in the sale are fit for service. Locust Gloster is a fine large cow, with a grand red bull calf, fit to head any herd. Gloster Pearl is another nice roan cow, with a fine roan bull calf two weeks old. The cattle are in nice condition, and have not been fitted for the sale. All those of breeding age are either in calf, or have calves by their sides.

SALE DATES CLAIMED. Feb. 25th.—J. & E. Chinnick, Eberts, Ont.; Shorthorns. March 4th.—M. Regan, Lemonville, Ont.; Clydesdales and dairy cattle.



A Valentine.

(By Arthur Guiterman.)

If all be true that wise men say
Of good Saint Valentine his day,
Oh, then above the melting snow
The Snowdrops bashful kisses blow;
The silver Trout of lake and linn
Do swim together, fin-to-fin:
The furry Hares of heath and shaw
Do make their gambols, paw-to-paw;
The Birds their mating carols sing
And fly together, wing-and-wing,
And all about the wakening land
Go Youths and Maidens, hand-in-hand.
Then, Ever-Dearest, hear my plea
And wander hand-in-hand with me!
—Good Housekeeping.

St. Valentine.

Valentine is a name by which several saints are known, the most celebrated being the two martyrs whose festivals fall on the 14th of February. It appears, from ancient accounts, that both belonged to the same period, i. e., to the reign of the Emperor Claudius; that both died on the same day; and that both were buried on the Via Flaminia, but at different distances from Rome. The especial bishop who, by some accident, has become the patron saint of lovers, was thrown into prison as a Christian by the pagans, and, while there is said to have cured his keeper's daughter of blindness. Afterwards, he was beaten with clubs, and finally beheaded.

The feast of the 14th of February, however, far antedates the Christian era. It was merely adapted by Christians, probably because of the coincidence of the death of the bishop of Terni on that day.

In England, 'St. Valentine's Day has been "kept" for many centuries. Both Chaucer and Shakespeare allude to it, also Samuel Pepys, in his famous Diary. He tells that upon one occasion a certain "little Will Mercer" came up to his wife's bedside to be her valentine, "and brought her name, written upon blue paper in gold letters, very pretty, and we were both well pleased with it." "I am also my wife's valentine this year," he adds, ruefully, "and it will cost me five pounds, but," more cheerfully, "that I must have laid out if we had not been valentines."

The Pearson Flower Competition.

[Now that the seed catalogues, with all their inspiration, are arriving, especial interest will be taken, all over Canada, as well as in Peel County, Ont., in the following charming description, by Miss Alderson, Toronto, of the Pearson flower-judging trip through Peel County, taken last fall. Mr. Pearson (a lawyer, Toronto), it will be remembered, gives, annually, prizes of \$30, \$20, and \$10, to those farmers' wives and daughters of Peel County who succeed in having the most beautiful flower gardens. A similar competition has been instituted for Halton Co., Ont., by Mr. H. C. Cox, of the Canada Life Assurance Co., Toronto.]

My kind country friends, do you know what a real treat it is to leave the restless, throbbing city, with its unending problems of needs and reforms, to revel in the luxury of the food-producing fields and orchards—the story of your labor, industry, and faith?

To follow the winding road o'er hill to height, from heights to valley,

through valleys to river, from river to woods, through woods by brooks?

It was my privilege to enjoy all these, through the courtesy of Mr. and Mrs. James Pearson, of Toronto, when we toured Peel County to learn who should be awarded the prizes in the Pearson Flower Competition.

The first was easily decided upon, for who could but be won by Mrs. D. N. Potter's garden at Mono Mills; but points of merit so crowded in the other seven, it was hard to place second and third.

The judges, Mr. and Mrs. Pearson, and and myself, each held our own counsel as to what we thought, being loth to make a choice, but finally the decision was fixed by a vote by ballot, which resulted in Mrs. A. McLean, of Snelgrove,

flowers from the gate to the house, also flowers in generous display on three sides of the house, and on the veranda. Clustered by the fence next the driveway was what had been a grand array of gold, in golden-glow. Within the inclosure near the big gate was a unique little low spot, where "cat-tails" grew in all their wildness.

At "Bonny Braes," the home of Miss Margaret Kirkwood, The Grange, we found a most beautiful lawn, and the neatest yard about the barn we had ever seen. From the road, a flash of gold in double sunflowers greets you, while nearer inspection revealed a great assortment of Chinese pinks, double Sweet William, pansies, mignonette, balsams, antirrhinum, a wigwam of morning-glories,

At "Mono Mills," we were delighted with Miss M. L. Potter's array. Her dainty round bed of exquisite cream, lemon color, mauve, purple, salmon, white, also pink stocks, could not be surpassed.

A splendid line of gladioli lead down the side pathway, edged with alyssum. At the front of the lawn is a rose garden in which some roses still bloomed. Near one approach to the house was a throne of gold in double sunflowers, and bed of double poppies.

En route to Sandhill, we hailed a blacksmith. "Will you tell us if this is the road to Sandhill?" inquired Mrs. Pearson. "Yes, keep right on this road," he replied. "How shall we know it when we come to it?" was the next question. "You will see a pump, a rooster, and a blacksmith's shop," was the ready reply; and we did.

Just beyond Sandhill we found Miss A. L. Warren's. The stretch of green from front to back, which leads from flowers to more flowers, made a most attractive lawn, and pressed hard for a prize. Miss Warren can boast of the richest zinnias one could wish to see, also geraniums, placed with good effect from front to back garden. Through a gateway one comes to a delightful bed from which could be picked a generous bouquet.

As we sped along our way, eight or nine school-boys at the noon hour were playing by the road. When asked which was Mr. Newlove's place, and a ready reply given, Mrs. Pearson said, "Do you want a ride?" Those eyes and smiles bespoke surprise and eagerness. No second sweep of the hand to indicate "all," nor "well, get on," was required, for like a batch of flies they lit on the car, the mud-guard being put to ready use.

A half-mile up the road we flew on our journey to Macville, a laughing, boisterous crowd; hats and caps were grabbed and tossed along the road. When I came to open the door to leave the car, I found a young gallant of ten or more waiting to assist me.

A fine old place is the Newlove home, and much opportunity for attractive effect. As you enter, an immense bed, beautifully designed, arrests you. Flowers without stint adorn this spot of beauty, while castor beans and cannas give a tropical effect. Mrs. Newlove's asters, dahlias, gladioli, and balsams, were something to be proud of, and her idea to have them so they could be enjoyed as she pursued her daily routine, was commendable.

An archway over the gate and at the well, and an arched rockery, were most pleasing features of Miss Minnie Jaffrey's garden. On every side of the house were flowers. Marigolds were large, double, and of exquisite shades, while splendid dahlias made a fine showing.

Miss Mona Kay's garden suggested a coziness that is very winsome. As you step from the front door you are in its midst. To the side is lawn, and the driveway is enhanced by a large bed to the right, in which golden-glow makes the center.

The winner of the second prize, Mrs. McLean, besides her own love of flowers, has interested her three sons, feeling it would give them something to interest them. The response to the call, bespeaks that which helps to make a fine manhood. The restfulness produced by flowers that loiter on each side of the home has a charm not to be forgotten. Towards the back was Charlie's garden, with its balsams, asters, and other flowers well cared for, he being in the contest for the school prizes.

Mrs. Potter, always a lover of flowers,



Mr. James Pearson Leaning on the Gate.



Part of First-Prize Garden.

Home of Mrs. D. N. Potter, Mono Mills, Ont.

receiving second, and Miss Mona Kay, Erindale, third.

Much could be said of the splendid appearance of thrift and pride exhibited, the well-built brick homes, substantial barns, and in many instances solid stone walls for fences, in this country, but it is of the flowers and lawns we must speak.

Flowers are Nature's children; they win us from our sordidness; we forget all else when we commune with them.

Miss Cassie McDonald, of Rockside, had reason to be proud of her pathway of

and other flowers. But some effect was lost by being unable to place the flowers to advantage this year, a difficulty probably overcome another year.

A charming feature was an arched porch of good dimensions at the front door, festooned by a grape-vine supported by a steel frame securely anchored to the house. Three arches made most attractive entrances. We saw no such fine dahlias as Miss Kirkwood's, large white ones at the rear of the house, and found the young woman well versed in floral art.

has adopted many species, and made one harmonious community of all.

As you come from out
The dear, quaint house,
A hush spreads over all,
Then, with a joyous shout, you cry,
"What beauty doth befall!"

Across the front a great, broad bed.
Here to the right an avenue whence
lovers sure would lie, screened in by
flowering shrubs and hollyhocks, and
softened by dainty flowers. Just there,
a vine beclad, arched trysting-place—the
gate to the beyond, and here a pure
white band of stocks all tipped with
green, and just beyond, a stately wall,
all spruce, through which you pass be-
neath an arch, to find another garden
there, alive with glaring poppies red,
verbena, and nicotina, and stalwart
stands a sweet-pea wall, and at one end
the shelter, rustic, large, with resting-
porch above.

Just near the house, in crimson flame,
geraniums hold their sway, begonias in
an urn so green and cool by ice-plant,
all adorned, and on one side, right up
the wall, clematis grow, rich purple, and
all-white. Just in the porch a foliage
grand, and fuchsias swing their bells.
So sheltered from the highway by grove
of trees so grand, this bower is here
from love of it, and not for show or
praise.

But we must go. So sweeping through
the big arched gate all softened by a
clinging vine, another trysting-place is
passed. Good-bye, new friends, and all.

A bracing ride, and once more back to
our cozy nest, "The Cabin," near the
Forks of the Credit. Yes, a real, dear
old log cabin, some eighty years old,
o'ershadowed by the mountain-side, with
babbling brook to lull to sleep, and grazing
sheep and glorious hills and valleys all
about. Ideal! Not to be surpassed! Six
hundred acres of the best of land,
streams, mountain, maple grove, and
lakes, the idol of Mr. Pearson's heart,
within walking distance of Caledon
Mountain Trout Club, of which Mr. and
Mrs. Pearson are members, and where I
had the pleasure of dining on Saturday
evening, with its exquisitely-kept ex-
panse, and flowers of unusual type.

As we sat beside the kitchen fire when
shadows fell, mine host spoke of his boy-
hood days, his mother and sister's gar-
den, and thus a busy man, with many
enterprises tugging at his elbow for at-
tention, finds time and means to insti-
tute the flower competition to stimulate
attractiveness and love for the beau-
tiful, and encourage the wives and daugh-
ters, for well-kept lawns and flowers re-
pay for the toil and care expended.

Mr. Pearson's liberality in originating
this competition should result in an in-
creased number of competitors for these
prizes in 1913.

Everywhere we met with courtesy and
thoughtfulness, and here I must say a
word for the originator of the competi-
tion; in every instance where horses were
met, a watchful eye was kept upon them
by the owner of the car, and if the
situation were the least critical, the car
was stopped, and Mr. Pearson led the
trembling animal past, talking to and
persuading it to look at the monster
that terrified it.

Add to all the delightful things just
spoken of, a most kind host, a hostess
thoughtful and capable for any emer-
gency, a careful chauffeur, and a most
loveable little Australian Retriever called
Chic. What more could you wish for a
glorious trip?

Toronto. L. IDA ALDERSON.

Hope's Quiet Hour.

Through Christ.

I can do all things through Christ
which strengtheneth me.—Phil. iv.: 13.

One of our readers has asked me to
write my opinion of the words quoted
above.

St. Paul tells us that we can under-
stand the eternal power of God if we
study "the things that are made"; so

we will begin by looking at some of the
mighty works men can do in the
physical world, through the all-powerful
co-operation of God. These mighty
works are very astounding, but we have
become so accustomed to them that we
take them as a matter of course. Not
so very long ago there was a young man
who had travelled across the ocean,
thousands of miles from home. In those
days it seemed impossible to send a
message from England to America more

45,000 tons of coal, and yet Warren de-
scribes how easily that load was once
carried down the long toboggan-slide of
the Ohio and Mississippi, to New Or-
leans. It was on a solid boat, or raft,
covering six and a half acres, with "one
little steambot to steer." The bigger
the load is the more easily and swiftly
that servant of ours can do the work.
It is always working for us, never tired
or forgetful. It brings down from the
clouds a tiny raindrop to refresh a
thirsty flower, and at the same time is
holding the huge planets in space, with
a strength almost inconceivable. It

Several years ago I was standing be-
side a railway engine that was lying
helplessly on its side at the bottom of
an embankment. Though the fire was
out, and the great monster was as
powerless as a pebble, I preferred to
stand beside it rather than in front. It
looked dangerous—as a gun always looks
dangerous to a woman, even when it is
not loaded. That engine was able to
do great things, when the power of
steam was working through it. With-
out the power, it could not even move
itself, much less pull a heavy train.

Now, let us think of the invisible
things of the spiritual world, which we
can understand through the things that
are made. Christ declares His Divine
power when He says: "He that abideth
in Me, and I in him, the same bringeth
forth much fruit: for without Me ye can
do nothing." As the branches of a vine
can only produce fruit if the
life—that life which can never be seen or
touched—is constantly throbbing through
it, so a Christian can only produce fruit
if the Life of Christ is working in and
through him.

Through Him we can do all things
that God wants us to do. Many years
ago a little baby was lying in a cradle
of rushes. He was both helpless and
ignorant, yet through him God brought
a nation out of slavery, and set it up
as His torch to bring light to all other
nations. Through that little child the
Jewish race was preserved, and through
the Jewish race God Himself was linked
marvellously with all mankind.

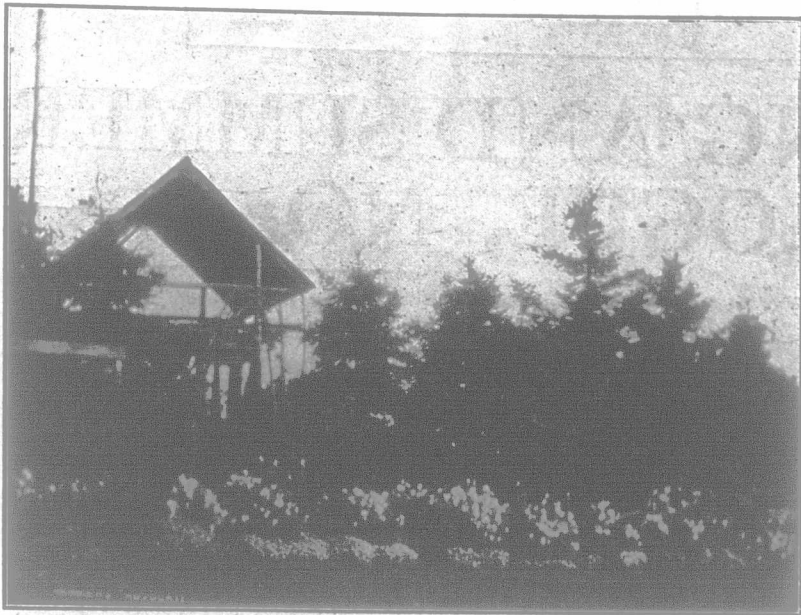
I often think, when looking at a tiny
baby lying helplessly in its mother's
arms,—"Through that child God may do
marvellous things." The Babe in Beth-
lehem's stable looked as helpless as any
other new-born child; yet we of the 20th
century can see how He has worked with
living power in all the world—and is
constantly doing wonders through lives
yielded to His influence.

Yesterday I was reading about the
work that is being done among the
"criminal tribes" of India. Harold Bag-
bie declares that a Scotchman and his
wife—working for and through Christ—
have, in two years, done far more in the
way of reformation than all the power
of the Government, backed by England,
accomplished in twenty-five years.

The great trouble with our work for
Christ is usually that we are not work-
ing in and through Him. We trust our
power too much, or distrust it, instead
of expecting God to do His work through
us. Sometimes we are unconscious of
this tendency. For example—We kneel
down and ask God to work through our
words, spoken or written. Then we
speak or write our messages for Christ.
Weeks, months, or years afterwards, we
are told that the message we sent out
prayerfully was a living seed which has
helped another life. Then we may, per-
haps, feel elated or even conceited about
"the good we have done"—as a very
foolish farmer might possibly point to
his fields, and say: "See what a lot
of corn, oats, and potatoes, I have
made!"

When God works through a man to
produce physical results, the man is not
foolish enough to think he has made the
harvest—though, of course, his work has
been instrumental in producing it. Why
is it that we are so disappointed when
we can see no results from our work
and prayers? If God chooses to work
through us, in any particular soul, He
can do it—if we keep ourselves always
at His disposal. If we can't see the
hidden working of His Spirit in that
other soul, we can trust. If He is not
worthy of our absolute trust, then we
have no reason to trust Him in any-
thing. Do you ever realize how black
and desolate our outlook would be if
the light of God's Love—as revealed in
the Bible—were blotted out of the world's
consciousness? Many people in heathen
lands think that God is bad. The idea
of His Holiness has never entered their
heads. When pain or troubles come,
they suppose that devils are tormenting
them. When they yield themselves to
the helplessness of sleep, or death, they
know nothing of the peace which fills
our hearts as we lie down like tired
children in our Father's tender keeping.

We can trust God to do some things
through us—dare we set a limit to His
power? We can't begin to measure the



Rustic Arbor, with Outdoor Sleeping Apartment Above.
Home of Mrs. D. N. Potter, Mono Mills, Ont.

swiftly than a letter could travel. That
young man, whose name was Morse,
longed earnestly for a seemingly impos-
sible thing. He wanted to communicate
with his parents as swiftly as the light-
ning could travel. He had no more
power than any other man to reach
3,000 miles; but, through that mysteri-
ous power which God has given to be,
the mighty servant of man—the force we
have named "electricity"—he accomplished
the impossible, or apparently impossible.

looks after every pin that is carelessly
dropped, and makes it possible for each
of us to walk about safely. If it were
not for that force which holds us to the
earth, we, and all other loose objects,
would go flying off into space because we
are spinning around at such a terrific
pace. And yet, although we are secure-
ly held in the spot where we are at this
moment, we can move about quite easily.

Then there is the power of Life, which
is constantly doing such amazing things.
Great trees come from tiny seeds, men
grow from helpless babies, life produces
flowers, fruits and vegetables, from such



Third-Prize Garden.
Miss Mona Kay's, Erindale, Ont.

thing he desired. No man, in his own
strength, can speak to another man a
mile away; but, through that secret, in-
visible power, he thinks nothing of talk-
ing to a friend a hundred miles away.
No man is strong enough to pull a
crowded street-car an inch along the
track, but he links himself with his in-
visible servant, and the "impossible"
task becomes as easy as breathing.

Then there is another mysterious, in-
visible force, which we call "gravita-
tion," and which we are apt to think
that we understand because we have
given it a name. No man could carry

materials as sunshine, water, minerals,
and dust. No man, with all his clever-
ness, could make an apple or a living
daisy. Yet the farmers—through God—
provide the world with nourishing and
delicious food. Without God, man could
do nothing in the world of nature; with
God, he is constantly doing, with ease
and swiftness, things apparently impos-
sible. We think of the many wonders
which are common to-day, and which
would have seemed the wildest impossi-
bilities a hundred years ago, and we are
ready to believe that there is practically
no limit to man's achievements—with
God's power working through him—in
this physical world.

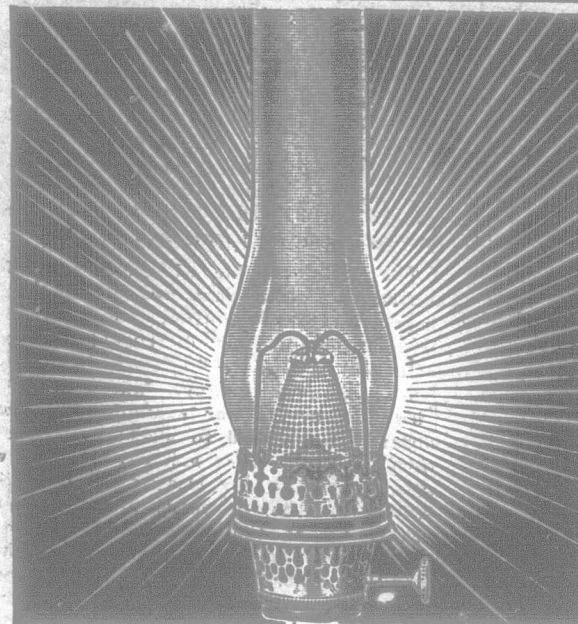


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power men can yield through God's servant, Electricity; how is it that we have so little confidence in His ability to do "all things" through us, when He comes into direct personal touch with us? Is the servant mightier than the Master?

Bishop Brent, in "With God in the World," speaks in these forceful words about the way we can "do all things," to uplift others spiritually, through the mysterious power of Prayer. He says: "Intercession rises to sublime heights when it claims the privilege and the power for each child of God to gather up in his arms the whole family to which he belongs, and carry it with its multifold needs and its glorious possibilities into the presence of the common Father for blessing and protection. It is grand to feel that the Christian can lift, by the power of prayer, a myriad as easily as one, that he can hold in his grasp the whole church as firmly as a single parish, and can bring down showers of blessing on an entire race as readily as the few drops needed for his own little plot."

Let us think of the wonderful truth expressed in that clause of the Great Prayer which we use so carelessly sometimes: "Thine is the Power." If we abide in Christ, and He abides in us, His power—the might of His Life—is constantly flowing through us. He will always do mighty work where He is not hindered by unbelief.—St. Matt. xiii.: 58.
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 SOMETHING MORE ABOUT ORGANIZED EFFORT.

There are many amongst us keenly alive to the value of women's work in our own land who yet know but little of what the women of other lands are striving to achieve on similar lines in the other elsewhere of the globe. There may be different avenues of approach, but the goal for the awakened womanhood of the several nations is the same, "The union of all, for the good of all," and the name of this ever-increasing sisterhood of loving service is the International Council of Women, the bonds which unite them growing firmer and stronger year by year. Canada stands second upon the list of nations which agreed to join hands in this good comradeship of which the central idea is that of helping others, with "Unity of aim, and co-operation of action" as its watchwords.

Bethink you what it means, that the sympathy of the women of the several nations should be enlisted in the furtherance of peace and arbitration, in the suppression of the hideous traffic in women which has its ramifications throughout almost every country of the globe, in the care of the mentally and physically afflicted, in the best methods for the educational development of the children, in the suppression of vice, and the wisest and most effective measures whereby the treatment of criminals should have curative results and not tend to punishment only, and these are but a few of the reforms aimed at. By the mere comparing of notes, one nation can teach another through the success or failure of its own methods, so an International Council has a wide educational as well as philanthropic value, and along both lines has already, over and over again, justified its existence. In the records of the quinquennial meeting held in Toronto three years ago, when representatives from over twenty nations tendered their reports and took part in all the discussions, many of them in the English language, the Council of Holland, through Meijuffrouw Baelde, presented to Lady Aberdeen, the President, a handsome gavel of office, not only in token of their high regard, but to keep the women of Holland in tangible remembrance as faithful comrades in the mutual work in which they were all engaged. After a humorous and happy little introductory speech, Meijuffrouw Baelde said: "It might seem presumptuous that a country not so big as many of the others should present the hammer of office, but after all, in thinking it over, Holland resembles more nearly than any other country the work of our International Council. In the city of Leyden, where Father Rhine dies out and goes to bed, and you don't see anything of him again, there is a house in which there is a map showing how Holland maintains its existence. There you see how we work; how, along the same canals, are the little hills taking off the surplus water, which goes from those little canals into the river, and from the river it goes to the sea. That is exactly like the work of this Council. We take the little evil things, we try to take them, each at home, around us, by the little small mills, and we put them together at the National Councils; there we have the big mills, and from all the evil we take out there comes a stream that is a good thing, and we bring it all to the International Sea, and there we are united, and the ships go over the sea and bring happiness and fortune, and everything, everywhere, and all over the seas, and all over the nations."

Is not that a good reply to the frequent enquiry, "What is the International Council of Women?"

Nor is this the only question which reaches the older workers, and as it is one which cannot be adequately answered off-hand and without some detail, I would like to refer all, who really want to know to a most valuable source of information, the published report of the transactions of the Quinquennial meetings of 1909.

With reference to these, one of our good National Council workers, and one well known as a speaker at the meetings of the Ontario Women's Institutes, Mrs.

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This is a most serviceable and popular style of fencing, and the durability of it is guaranteed. It is thoroughly constructed and completely galvanized, and we use a No. 9 wire for top and bottom lines, with a No. 12 wire filling. There are 15 stays to the rod, being only 13 inches apart, making it a close mesh for general use. A popular and tight fence.

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 Write for prices of other gates or ornamental fences.

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WE GUARANTEE SATISFACTION OR REFUND YOUR MONEY

Horace W. Parsons, of Forest, has thus written, and I have her permission to pass on to you what she says: "When you find a good thing, pass it on," may be a saying a little worn, but it is only shoddy things that quickly become threadbare, so I want to pass on the news of the two desirable volumes which tell of the transactions of the International Council of Women, in Toronto, in 1909. Two large, prettily-bound volumes, that are instructive reading from cover to cover, containing a fund of information on subjects of interest to every thinking woman. In this day of institutes, literary societies, clubs, and church societies, branching out to questions of social and moral reform, these books are invaluable. They contain addresses on nine distinctive phases of activity—Art, Education, Health, Literature, Philanthropy, Moral and Social Reform, Professions for Women, Laws Concerning Women and Children, and Industrial Work—and these addresses were delivered by women, and a few men, who all stood for something worth while in their own countries. The child and its needs is very largely in the fore-front to-day, and women are asking, "Where can I get good reliable information?" In the Health section you will find your answer on the milk supply, physical training, medical inspection of schools, hygiene, good food, and play and playgrounds; while the Educational section is brimming over with practical ideas

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that can be adapted to suit the needs of the country. The pages devoted to the Professions and Careers for Women, should be widely read in this age of the industrial and professional woman. A range of choice is offered, and there is a word of encouragement to the woman in Agriculture, in Horticulture, as gardeners, as poultry-keepers, in science, in journalism,

or in business. In fact, every up-to-date woman must know, not only the extent and possibilities of her own chosen career, but also what the other woman is doing and thinking. Have you realized the rapid strides that Canada is making towards a literature of her own? Miss Warnock directs you to the finger-posts of Canadian writers in the Literature section, which has, besides, a feast of dainty dishes on women who have done and are doing their share towards delighting, amusing, edifying and elevating mankind by their pure, bright thought and noble sentiment. Art, Music, and the story of Handicrafts have their place, philanthropic measures are discussed at length, as well as the more prosaic, though necessary and weighty matters of the Law, which relate particularly to women and children. The stirring addresses along Social and Moral Reform lines appeal to every earnest worker who has the good of her nation at heart. In quick succession, the 'cry of the children,' the great need of protection for the growing girl, the appalling disclosures of the foul blot of the White Slave Traffic come before you; the panoramic view of sin and the sin-stricken, call for woman's sympathy and help. The story of the growth of brave women's effort in Settlement work lends a brightness of relief to the tragic realities of Life as it is found in the crowded, congested centers of a city.

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Yours truly,

GEORGE KEITH & SONS

It would take pages of type to exhaust the value, the delights, and the informative qualities of these volumes.

Women's institutes, local libraries, women workers generally—add these books to your collection, for they contain so much sane, deliberate wisdom, so much reliable material for the writing of papers, so much that it is necessary to know, so much that is uplifting, delightful, and worth while.

I almost forgot to tell you where these two volumes, entitled 'The International Congress of Women,' can be obtained. I got mine from Mrs. Cummings, Secretary of the National Council of Women, 44 Dewson street, Toronto, and I never regretted the investment of that \$2.50."

For myself, I will only add that to possess these valuable volumes is of itself a liberal education, and although the price may seem somewhat prohibitive, as an individual expenditure, the value of those 900 pages of information to book clubs for reference, or to be passed around as a loan, would richly repay the outlay. There are not many copies left, but an early application will meet with immediate attention from Mrs. Cummings, who is already personally known and highly esteemed by a large number of the readers of the Home Department of "The Farmer's Advocate."
H. A. B.

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The Farmer's Advocate Bureau of Public Health Information.

QUESTIONS, ANSWERS, AND COMMENTS.

Conducted by Institute of Public Health, London, Ont.

[Questions should be addressed: "New Public Health, care of 'The Farmer's Advocate,' London, Ont." Private questions, accompanied by a stamped, self-addressed envelope, will receive private answers. Medical treatment for individual cases cannot be prescribed.]

Typhoid Pollution of Wells

Typhoid fever and wells, shallow or otherwise, are, in the public estimation and too often in the professional, indissolubly connected.

Many times the first intimation which public health authorities receive concerning an outbreak of typhoid fever is in the form of a request for an analysis of a water supply, no mention of typhoid fever being made in the request, and the fact that typhoid exists being elicited only by inquiries as to why the analysis was asked for.

When typhoid fever occurs in private families, in communities where private wells are in use, or in private families on isolated farms, the first instinct of those concerned, even of the physician, is to ask for an analysis of the well water.

The utility of this request is very easily demonstrable.

First.—The incubation period of typhoid fever (from the date of infection to the date on which the very first symptoms develop) averages two weeks; the symptoms usually increase in severity slowly for another week before becoming serious enough to attract attention; and the physician usually must study the case a day or even more before a diagnosis is arrived at. Usually, therefore, at least three weeks, often much longer, has elapsed since the date of infection, before the water sample is collected. All the evidence we have from every source indicates that typhoid bacilli do not live more than two weeks, as a rule, in drinking water. Hence if the well were the source of infection, those typhoid bacilli present in the well at the time of infection of the patient would have disappeared in the natural course of events at least a week before the sample was collected!

Second.—The examination of water for typhoid bacilli is tedious, difficult, and rarely successful. No laboratory pretends to examine for them in routine water examinations. Only under the most unusual combination of circumstances could they be isolated and identified. A search for them in a sample of well water collected three weeks after the date of infection would be a search for needles in a haystack, after the needles had been carefully removed! Nevertheless the public and the profession ask for this examination, and are often highly indignant if it is not done.

Third.—A sample to be collected properly for such an examination must be collected by a trained specialist. A sample collected by the ordinary layman or practicing physician or health officer, not specially trained in this particular technique, cannot be trusted to yield reliable results from ordinary bacterial analysis—much less from the particularly troublesome examination for typhoid bacilli.

Fourth.—The time consumed in making the proper determinations is necessarily one or two weeks or more. If the typhoid outbreak is permitted to run unchecked during this interval while awaiting the laboratory results, untold harm may be done. The proper way to handle such an outbreak is not through analyses, occupying one or two weeks, but through an epidemiological investigation, taking at most two or three days.

Fifth, and most conclusive—the well is so seldom the cause of typhoid fever (particularly the private family well) that instead of being the first (and usually only) source to investigate, it is usually the last which should be suspected. This is generally true, except in lime-stone or gravelly countries.

This may seem a radical statement. I will therefore repeat, emphasize, and support it. In six years' experience, in-

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HEAR

What eye glasses are to failing sight, my invisible ear drums are to lost or failing hearing. Just as simple and common sense and on the same principle, for they magnify sound as tiny telephones of soft, sensitized material, safe and comfortable, which fit into the orifice of the ears and are invisible. They can be removed or inserted in a moment and worn for weeks at a time, for they are skillfully arranged for perfect ventilation and anti-friction. These little wireless 'phones' make it easy to hear every sound distinctly, just as correct eye glasses make it easy to read fine print. Among the nearly 400,000 people whom they have enabled to hear perfectly, there has been every condition of deafness or defective hearing. No matter what the cause or how long standing the case, the testimonials sent me show marvelous results.

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have restored to me my own hearing—that's how I happened to discover the secret of their success in my own desperate endeavors to be relieved of my deafness after physicians had repeatedly failed.

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Farm For Sale

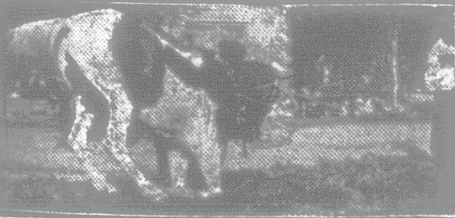
Farm for sale consisting of 100 acres more or less, being the east half of lot 5 in the 10th concession of East Nissouri, clay loam, all tile drained; good garden and small fruits: also young apple orchard, 30 trees of best varieties. There is on the premises a cattle barn 55x60 ft, stabling cement throughout, water supply in every stall, will accommodate 40 head of cattle & 1,500 bushels of roots, silo 13x36, feed room conveniently arranged. Horse barn 30x40 feet, with water supply inside. Up-to-date hog-pen and henhouse 20x64 feet. Drive barn 18x24 feet. Storey and a half frame house with good cellar, main part 36x24 ft., kitchen 13x24 ft., woodshed and summer kitchen 20x30 ft., hard and soft water inside. The farm is situated on C.P. R. one and a half miles from a cheese factory and other conveniences. Telephone service and rural mail delivery and in line for Hydro-electric in the near future. This is one of the best farms in Oxford county and is a rare chance for anyone wanting up-to-date property.

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85 acres of first class land adjoining the village of Princeton, sidewalk past the gate of farm. Creamery on opposite side, 3-room school near by. A first class large bank barn with good stabling just put in during the past two years, large brick house in fair condition. Farm is in first-class condition and no obnoxious weeds or waste land. Price \$6,200. Box 18, Princeton.

volving very many personal epidemiological investigations of typhoid fever, I have never yet encountered one case traceable to a private well: while of typhoid outbreaks due to public wells, there were but three. Only one was infected by flow of sewage into the well through the soil.

Four outbreaks of severe dysentery, not associated with typhoid fever, also occurred in the above period, due to infection of public wells. In three cases, the polluting material entered the well directly; in two, through a hole large enough to permit the passage of a fish two inches long. In the fourth instance, the pollution was carried into the well by workmen engaged in setting a pump and doing other work in the well near its bottom.

What are the facts which reconcile these apparently divergent teachings, beliefs and findings?

First.—Confusion between chemical "pollution," general sewage pollution, and actual typhoid pollution exists very widely.

Let it be said that very many shallow wells show chemical constituents in excess of the normal for that locality if there are in the neighborhood out-door toilets, cesspools, manure piles, etc. But such chemical "pollution," the result of the leaching through the soil of watery extracts of the soluble constituents of night-soil, manure, etc., are not harmful in the sense that they produce or have any connection with the production of typhoid fever.

Let it be said also that some wells have entering them, not alone the watery chemical extracts of the soluble constituents of manure, sewage, etc., but also some of the bacteria thereof, the colon bacillus usually with or without others.

But typhoid fever does not necessarily develop from such wells; there is no necessary connection between such forms of bacterial pollution and typhoid fever.

Neither chemical pollution, which is almost everywhere present, nor general bacterial pollution, which is not uncommon, but only actual typhoid pollution entering a water-supply can produce typhoid fever in those who drink it. Such typhoid pollution cannot come from manure, nor even from human discharges, unless there be amongst the human discharges some from a person infected with typhoid fever.

Hence the statement so often repeated, that the majority of shallow wells are polluted, means nothing concerning typhoid-fever infection, unless the kind of pollution be defined.

Certain it is, however, that while mere chemical pollution is practically never of significance, no one wishes to use water from a well which receives bacterial pollution from human discharges, even though those be normal discharges. Moreover, if a well is receiving bacteria from human discharges at all, those discharges, although normal now, may at any time have added to them typhoid discharges which, reaching the well by the same routes as the normal ones, will produce typhoid fever, although the normal discharges do not.

Further, under conditions not well understood, human discharges, free from typhoid infection, produce at times diarrhea or dysentery in those who drink water infected by them. It may be that such dysentery or diarrhea is connected with a specific infection with a specific organism or organisms, but this has yet to be seen.

How do such discharges enter a well? While it is true that wells sunk in limestone or similar formations, in loose, open gravel, or in creviced rock, may receive the bacteria in human discharges carried through the soil, if the crevices or openings in the rock connect a toilet or cesspool, or broken sewer pipe, etc., with the well, wells in exactly the same relative situations, but sunk in sandy soil, will have the bacteria filtered out before they reach the well, while in many clay soils, the bacteria are either filtered out or there may be no flow of fluids from one point to another, to carry them, some clays being quite impervious.

Hence, while there is no question that some wells may be bacterially polluted through the soil, the other question, are they thus polluted, in any large percentage of cases, can be answered by a consideration of the soils in which the wells are sunk.

Herein lies the explanation why wells in clay or sandy soils are so seldom

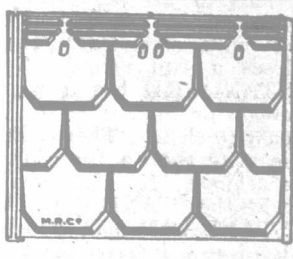
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We did not start manufacturing until we had spent thousands of dollars in experimenting, and produced what we thought to be, and has proved to be, a perfect shingle.

This shingle was named 'EASTLAKE' and was put on the market over a quarter of a century ago.



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The "EASTLAKE" SHINGLE of then, is the "EASTLAKE" SHINGLE of to-day, and will serve you as well as it has served these customers for over twenty-five years.

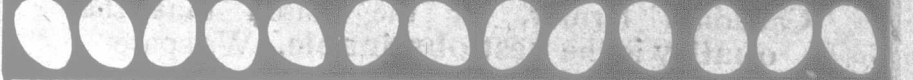
We can honestly claim by actual proof and test of service that no other shingles have been introduced that will equal "EASTLAKE."

Let us know your roofing problem and we will help you find a solution. It will cost you nothing and it will be a pleasure to us.

Investigation is worth while. It pays to know.

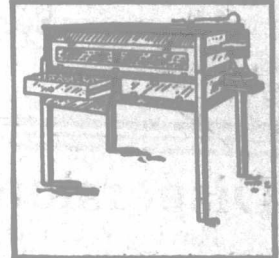
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To-day there are not enough Canadian CHICKENS or EGGS to go around. Thousands of chickens and hundreds of thousands of dozens of eggs are being shipped into Canada from the United States and other countries to help meet the demand.

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Poultry raising is the best business for any farmer, any farmer's wife or farmer's child. The poultry crop is the one crop that never fails. It pays better for the time and money invested; the profit is sure; it isn't overcrowded and never will be.

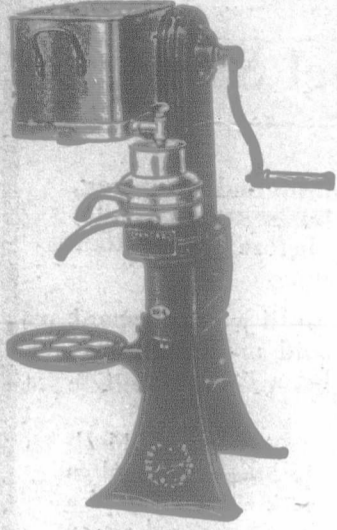
Our book "When Poultry Pays," will show you. Let us send it to you. It is interesting; it is instructive, and it contains the proof.

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Cream Separator under ordinary conditions skims to .01 per cent. or less. It loses but one-tenth of a pound of butterfat in 1,000 lbs. of milk skimmed. The ordinary separator loses a full pound. **Second:** Because the STANDARD has a wideopen bowl, and no cream or milk tubes to clog up. Everything easy to clean. **Third:** Because the supply-can is more than a foot lower than on ordinary machines. No high or awkward lifting to do with the STANDARD. **Fourth:** Because the STANDARD has a self-oiling system, and lubricates its working parts automatically all the time it is running.

The STANDARD will save more time and labor, and make more money for you than any other cream separator. Try one, and let the machine prove these facts.

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Head Office and Works: RENFREW, CANADA
Agencies Everywhere in Canada

**SOW
SIMMERS'
SEEDS**

Established 1856
For nearly 60 years
**SIMMERS'
SEEDS**

have held the highest place in the esteem of the Canadian farmer, for the reason that the quality is the best obtainable. We spare no expense to keep our stock up to the highest mark of excellence.

CATALOGUE MAILED FREE ON REQUEST.

J. A. SIMMERS, LIMITED
Seeds, Bulbs, Plants
TORONTO, ONT.

Dispersion Sale of Shorthorns

Having sold our farms, J. & E. Chinnick, of Eberts, Ont., will sell by auction, at the farm, one-half mile from Eberts Station, on

Tuesday, February 25th, 1913

30 CHOICE

Scotch Shorthorns

23 females and 7 bulls

They are from such noted sires as Prince of the Forest (Imp.) and Pride of Morning, out of Joy of Morning. They are descendants of Duchess of Gloster A and Butterfly 49th (Imp.). The farm is six miles north of Chatham and half a mile north of Eberts Station, on the Pere Marquette Railroad.

TERMS: Eight months' credit, or 6% discount per annum for cash.

Capt. T. E. Robson, London, and Messrs. McCoig & Harrington, Auctioneers.
Catalogues on application to

J. & E. CHINNICK, Chatham, Ont., (Box 86), or Eberts P.O.

Elmhurst Shorthorns

We will sell Chancellor's Model = 58524 = the straight Marchioness-bred son of the great Bapton dam from 1,400 lbs. up. Write for particulars or better come and see. H.M. Vanderlip, Langford Stn. Brantford & Hamilton Radial, Cainsville P.O., 6 miles from Brantford, Main Line, G.T.R.

found polluted with the bacteria of human discharges. In limestone areas, bacterial pollution of wells through the soil does occur. But especially in small communities, and still more on isolated farms, such human bacterial pollution may continue without much harm for long periods—in fact, until some one, infected with typhoid bacilli, uses the toilet or the cesspool, etc., and so contributes typhoid bacilli to the rest of the pollution.

Pollution of wells by surface flow over and into the top or mouth of the well is more frequent than pollution through the soil, but still not very frequent. That pollution from human discharges occurs from carelessness regarding the protection of well mouths is not infrequently true. Fortunately, however, these human discharges only occasionally contain discharges from persons infected with typhoid fever, or dysentery-producing organisms.

In general, it may be said that while infection of wells can and does occasionally give rise to typhoid fever in the users thereof, this form of infection, in clay or sandy soils, is very rare. Instead of the principal source of rural typhoid, it is one of the rarest sources.

Whence come the germs of rural typhoid fever, if not from wells? First, by infection of one member of the family while away from home, generally in a city. Second, by spread from this member, taken sick and nursed at home after his return, through contact (i. e., direct spread through discharges on the hands of attendants) and by flies, infection of food, etc. Third, by guests or hired help bringing the infection to the farm and placing it in the food, milk, etc., with their hands, or leaving their infected discharges where flies may carry them to food, etc. Rural typhoid fever often develops about threshing-time, when strangers on the threshing crews bring the germs with them to the farm.

In brief,
1. The idea that typhoid fever is exclusively a water disease is wholly mistaken. More than one-third of the cases so originate. Two-thirds are due to carriage of infection directly from patients and their discharges by hands, flies, etc., which infect eating utensils, food, milk, etc.

2. The idea that any great percentage even of the water typhoid is due to infected wells is also a great mistake—at least in clay or sand districts. Drilled and driven wells are, practically speaking, not capable of infection, through the soil, and seldom from the surface. Dug wells, in sand or clay soils, receive pollution chiefly from surface wash. Water typhoid is the result of drinking infected surface waters, as a rule.

3. No well should be continued in use if unfiltered human discharges have access to them; not because typhoid fever will necessarily develop therefrom, but because, if unfiltered human discharges reach a well at all, there is always a chance that infected human discharges containing typhoid bacilli, will one day take the same route and infect the same water.

4. When a case of typhoid fever occurs, study the history of the patient to discover where he was and what he ate and drank, and with whom he came in contact during the second and third weeks preceding his date of earliest symptoms. These will be the third and fourth weeks preceding the date of his going to bed, as a rule.

5. Don't make the illogical mistake of attributing a single case of typhoid to the use of a well, which many other persons were using at the date of his infection without ill effects, which is not subject to surface contamination, and is sunk in clay or sand.

6. In clay or sandy soils, the protection of the well mouth, by proper elevated curbing, is far more important than worry about subsoil drainage, for a good curbing protects against the greatest danger, surface pollution.

7. In a limestone country, or where loose, open gravel, or shale or creviced rock exists, the greatest care is needed to make sure that neighboring privies do not connect by subsoil drainage directly with the well. It is under such circumstances that analyses are specially valuable. But chemical analysis alone will not reveal the real facts. Bacterial examinations also must be made.

H. W. HILL.

We Buy and Sell FOR CASH

Hay, Wheat, Onions, Straw, Buckwheat, Beans, Corn, Bran, Peas, Oats, Shorts, Apples, Barley, Potatoes, Carrots.

Linseed Oil Cake Meal, Cotton Seed Meal, Gluten Feed, Etc. We make a specialty of Seed Grains and handle all kinds of Commercial Fertilizers.

We Manufacture

"Good Luck" Baby Chick Feed, Scratch Feed, Poultry Mash, Calf Meal, Dairy testing Feed, and carry a complete line of Poultry Supplies.

If it's anything for Stock or Poultry, we have it. WRITE TO-DAY for PRICES.

Crampsey and Kelly
Dovercourt Road - Toronto, Ont.

POULTRY AND EGGS

Condensed advertisements will be inserted under this heading at 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 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.

A FEW choice Brown Leghorn and Ancona Cockerels, hens and pullets for sale. Single comb. Arthur Master, Highgate, Ont.

BARRED Rocks, Black Minorcas and Houdans. Eggs for hatching. Free circular. C. Day, Highgate, Ont.

BRED to lay. S. C. White Leghorn, (Cyphers Stock) eggs \$1 per 15, \$5 per 100, also baby chicks. Indian runner duck eggs \$2 per 13. C. S. Wilson, Tambling's Corners, London, Ont.

BARRED Rocks and White Wyandottes, single birds, pairs, trios or breeding pens; carefully mated. Prices low; satisfaction guaranteed. Write for particulars. John Fringle, London, Ont.

CLARK'S Orpingtons, Buff and White, 40 Ck's good type and color, \$2 to \$5 each. 50 pullets and yearling hens, \$2 to \$4 each. Good laying strain. Eggs for hatching. Free illustrated catalogue for asking. J. W. Clark, Cainsville, Ont.

FOR SALE—Single-comb White Leghorn cockerels and pullets. Good birds, \$2 a pair and up. Eggs for hatching. R. Hughes, Ideal Poultry Yards, Collingwood, Ont.

FOR SALE—Single-comb white Leghorn and single-comb black Minorca cockerels \$3 each. J. C. Collard, Southend, Ont.

GUILD'S bred-to-lay strains. New catalogue and matings. Send for one. L. R. Guild, Rockwood, Ont.

HEAVY pure-bred Toulouse geese \$3 each. Large Pekin ducks \$2 each. L. Mullock, Waterdown, Ont.

INDIAN Games, Houdans and Dark Brahmas; W. C. Day, Highgate, Ont.

PURE-BRED Bronze turkeys, heavy toms and hens, also ducks and pearl guinea fowl, prices reasonable. C. A. Powell, Arva, Ont.

SINGLE-COMB Brown Leghorn cockerels from a good laying strain; that are producing 37 eggs daily from a flock of 60 hens. For prices write W. C. Shearer, Bright, Ont.

WE again lead with the best egg-producing strain of Barred Rocks. A grand lot of cockerels for sale. Central Ontario Poultry Yards, Colborne, Ont.

WHITE Rocks, Guelph winners. Booklet free. John Pettit, Fruitland, Ont.

WHITE Wyandottes, "Martin and Russel Strains," cockerels and hens. Duncan McTavish, Chesley, Ont.

WHITE Wyandotte, Barred Rock and Black Minorca cockerels. Sunnyside Poultry Yds., Highgate, Ont.

WHITE Holland and Bronze Turkeys. W. H. Beattie, Wilton Grove, Ont.

ALBERTA 125
METAL COVERED
POULTRY PAYS WELL
by using our improved, safe, sure, simple, durable hatcher of 19 years experience by a Canadian. OUR FACTORY PRICES SAVES YOU HALF. Special adapted for Canada—heavy lumber case covered with felt, asbestos, gal-iron, copper tank, self-regulator nursery, ready to use. Guarantee—2 Hatch Trial. Free Catalogue—Write now! Brooders too. ALBERTA INCUBATOR CO., BOX 946, MANKATO, MINN.

100 Acres in Huron County.

100 acres in Huron county, 1 1/4 miles from Seaforth. Good clay loam, all under cultivation, bank barn, cement floors. Large frame house, newly painted; orchard; (one mile from country school and 1 1/4 from Collegiate Institute). Admirably adapted for dairying or grazing. An ideal home cheap. Apply Miss Susie Govenlock, Seaforth, Ont.

COMFORT SOAP

IT'S ALL RIGHT

The People are the Best Judges of merit in the long run. That's why Comfort Soap outsells its rivals.

POSITIVELY THE LARGEST SALE IN CANADA

Now is the time to install one of our

HAY CARRIERS



In the winter months when you are not busy is the time to figure and plan for your next summer's work. Every farmer should have in his barn a Hay Carrier, and we feel satisfied when you look into the merits of the Stratford Short Draft Hay Sling Carrier, you will agree that it is one of the best on the market.

It is not a complicated machine. Its simple construction assures no expense or time lost in repairing.

The team can elevate and the car can easily handle 2,000 lbs. per draft. Team can be stopped at any point and the load will be sustained instantly by the Carrier. There is a great saving of rope when you use the Stratford Hay Carrier. Do not wait till the busy spring-time or haying-time comes to install one of our Carriers, but order one now and install the same in your slack time this winter. We are making an exceptionally low price on the Carrier at this season, namely \$8.00.

Write us, giving measurements of your barn and we will quote you price on a complete outfit. We carry in stock: Carriers, Pulleys, Slings, Steel Track and Hay Forks. Ask for Catalogue No. 1


The Stratford Mfg. Co., Ltd., Stratford, Ont.

MENTION THIS PAPER

Our sole business is the manufacture of

Spramotors

That's the big reason why you only hear of Spramotors and ordinary spraying outfits now-a-days. The supremacy of the Spramotor in every class is unquestionable. It would be marvellous if we couldn't produce more efficient, economical and durable machines than our competitors—since they look on the manufacture of spraying outfits as a side line—while we have concentrated our capital, energies and brains on the perfecting of Spramotors for 17 years.



It does not matter what your spraying needs may be, there's a Spramotor specifically built for your purpose—a machine that will do more and better work than any other spraying outfit in its class—a machine that will give you

endless satisfaction, because it is built to endure.

Prices range from \$6.00 to \$350.00.

State requirements, and we will forward interesting facts without placing you under obligation to buy.

SPRAMOTOR LTD., 1562 King St., London, Can.

BEST RESULTS ARE OBTAINED FROM ADS. IN "ADVOCATE."

News of the Week.

The Bulgarians are steadily continuing in attacks aimed at obtaining possession of the Gallipoli peninsula.

A resolution permitting the enfranchisement of women, has been passed by the Pennsylvania House of Representatives.

President Yuan Shi Kai, following the suggestion of his French military adviser, Major Desmilles, has decided upon establishing an aerial fleet for China.

A contract has been awarded in New York for establishing eight wireless stations about the Pacific.

A very welcome Anglo-German agreement has been announced from Berlin. The details have not yet been made public, but they are believed to foreshadow some curtailment of the terribly increasing naval expenditure.

The Welsh Disestablishment Bill passed the British House of Commons on Feb. 5th, by a majority of 107. The Church will, however, continue to receive its endowment of £203,000, out of the present annual income of £260,000.

Mrs. Pankhurst declares that the suffragettes in England are planning an "exciting civil war."

The powder magazines in Great Britain are being replaced by subterranean storehouses as a protection against bombs dropped from aeroplanes.

A single six-year term for the Presidency has been approved by the United States Senate by a majority of one vote. The resolution now goes to the House of Representatives for approval.

Great Britain's naval programme for this year includes the building of 22 battleships and cruisers. It is probable that five or six more may be asked for.

News has been received by the returning Terra Nova, that Capt. Scott, R. N., and two companions, lost their lives in a blizzard March 29th, 1912, after reaching the South Pole.

Chancellor Lloyd-George declares that the supreme aim of Liberalism in England for the coming years must be to "supplement freedom of trade by freedom of opportunity"—a chance of an inalienable home for every family in the English country. According to his plan, a minimum wage of at least £1 weekly, must be set for agricultural laborers; also every laborer who requires a cottage shall have one, with a plot of land independent of the landlord.

Helen Keller, the wonderful girl who, though both blind and deaf from infancy, has been able to take a university training, and has written several books, lectured at a Socialist meeting in Montclair, N. J., last week. Not until a year ago did she learn to speak. She is a Socialist, and expressed very decided opinions.

"I am going to try to make you feel that no one of us can do anything alone, but we are bound together," said she. "I do not like this world as it is. I am trying to make it a little more as I would like to have it. Perhaps you are thinking how blind I have been. You have your eyes, and you behold the sun, and yet you are more blind than I am. "We are all blind and deaf until our eyes are open to our fellowmen. If we had a penetrating vision, we could not endure what we see in the world to-day. The lands, the life, the machinery, belong to the few. All the work they do gains for the workers a mere livelihood. "The rich are willing to do everything for the poor, except give them their rights. I am no pessimist. The pessimist says that man was born in darkness and for death. I believe that man was intended for the light, and shall not die. It is a good world, and it will be much better when you help me to make it more as I want it."

WANTED

All kinds of Farms—Fruit Farms a specialty. W. B. Calder, Grimsby.

EXPERIENCED feeder (single) wanted for Shorthorn herd, near Toronto. State experience. Box H, Farmer's Advocate, London, Ont.

FARM FOR SALE—160 acres, New Ontario, 16 1/2 under cultivation, 7 acres, slash, good timber, no stones, small buildings, organized township 4 1/2 miles from Earlton Junction. Price twenty-five hundred. Box M., Farmer's Advocate, London, Ont.

GIRL wanted for general housework in the country. Good wages to competent person. Apply box G, Farmer's Advocate, London.

STOCK FARM FOR SALE—Lot 24, concession 9, Beverly township, 10 miles east of Galt on county stone road. Best stock farm proposition in Ontario for sale to-day, but must be sold to settle estate. 107 acres, 2 bank barns joined, fine cement stables, cistern and silo, large modern dwelling house. Never-failing spring creek running near the buildings passes through farm from corner to corner. School within quarter mile, telephone, rural mail delivery at door. An ideal country estate for \$3850.00 Cash. Communicate with Evans G. Valens, 49 Homewood Ave. Hamilton, Ont.

SPLENDID two hundred acre farm, township Tuckersmith, Huron County, within two miles Seaford, Grand Trunk Railway, one of best farming districts in Ontario. Rich clay loam, high state cultivation, well tile drained, no waste land, never failing spring creek near buildings, substantial two story brick dwelling, beautifully situated, bath room, modern conveniences, furnace, divided cellar, cement floor, telephone, good orchard, spruce wind-break, large barns, stone stabling, excellent repair; splendid shape raise money-making crops, make fine grain, dairy or stock farm, never rented, school forty rods from house; ideal country home. Buyers looking for good farm see this. Jno T. Dickson, Seaford, Ont.

WANTED—Reliable married man to work with horses. Must understand farm implements. Reply stating terms and giving references. Robt. McEwen, Byron, Ont.

WANTED—Two experienced herdsmen for Eastern Ontario, to take charge of important dairy herds. Wages for head herdsman to start at \$65.00 per month, with house; for assistant herdsman, \$55.00 per month, without house. Farm conveniently located to city, and living conditions attractive. For further information apply: Box K, Farmer's Advocate, London, Ont.

WANTED—Nice young woman to do housework in fine Protestant country home. Mrs. E. W. Burt, Paris, Ont.

WANTED by reliable man, with fifteen years experience on fruit and grain farm, position as manager. Box 143, Stony Creek, Ont.

WANTED—An experienced single man for dairy farm; to engage by the year. Good wages for right man. M. H. Haley, Breeder of pure-bred Holsteins, Springfield, Ont.

WANTED—Farmer and his wife, to take charge of stock farm near Hamilton, Ont. Wife must be willing and able to attend to farmhouse duties. When replying, name date when you can come and give past experiences. Apply, F. O., box 164, Hamilton, Ont.

WANTED—Holstein bull fit for service and with good backing. A. Watson & Sons, R.R. No. 1, St. Thomas, Ont.

\$1,500 WILL BUY choice farm, forty acres, more or less, lot 6, con. 4, Delaware Township; ten acres of fruit trees, fine sugar bush, large brick house, fine fruit house, barn and drive house; over one hundred magnificent spruce trees along front and driveway. Address: Miss Doust, Lambeth P. O., or on the premises.

WANTED—CUSTOM TANNING—Send me your cattle and horse hides, and have them tanned and made into robes and coats. Deskins tanned for buckskin, also made into mitts and gloves. We tan all kinds of hides, skins and furs. Send them to me and have them dressed right. S. F. BELL, DELHI, ONT.

Seed Oats for Sale—Lincoln—From prize-winning field competition, 1912 I won fourth prize for grain at Ottawa Exhibition, fifth prize at Guelph Winter Fair; also second in open grain exhibit. Price, 85c in 5-bushel lots; \$1 per single bushel. Bags 25c each. J. M. MOODIE, Black Bank, Ont.

For Sale—About 300 bush. O. A. C. No. 71 Barley, guaranteed free from weeds and true to variety; 90c per bush; 80c in 10-bushel lots. Bags extra. Cash with order. WM. ELLIOTT, Galt, R.R. No. 1.

Cream—Sweet of sour, bought at highest Toronto prices at any point in Ontario. We furnish cans, pay promptly—haven't sold less than 32 cents for weeks. Write: TORONTO CREAMERY CO., Ltd., Toronto

Young Men

FOR ONTARIO FARMS

Arriving February, March, April. Apply: BOYS' FARMER LEAGUE, Drawer 126, Winona, Ont.

SEED CORN—First-class Essex-grown seed corn. Apply for varieties and prices: WALTER G. ANDERSON, Malden Centre P.O., Essex, Ont.

Farm for sale—To close an estate. 188 acres, six miles south from Hamilton, Wentworth Co., Glanworth Tp. Loamy soil, no waste land, 35 acres timber, two good bank barns, flowing spring, frame house, near stone road. Address: ROBERT CALDER, Ancaster, Ont.

PATENTS procured everywhere EGERTON R. CASE, Registered Attorney, Dept. E, Temple Building, Toronto. Booklets on request, 20 years' experience.

BOVRIL



BOVRIL promotes the growth of flesh and muscle. It imparts strength and stamina to the whole system.

3-2-12

"Bumper" Barley Crops

are easily obtained by the intelligent application and use of Nitrate.

CHILEAN

Nitrate of Soda

gives plants a good start, carries them along to proper development and maturity, and provides a "bumper crop."

Clean—uniform—odorless—cheap. Its results are astonishing and convincing. 100% immediately available.

Be sure and write today for our booklet—FREE.

"Fertilizers for Corn and Cereals."

Dr. WILLIAM S. MYERS
Director Chilean Nitrate Propaganda
17 Madison Ave., New York
No Branch Offices

Send for Hose
That Last
Six Months

A Million People Wear Them

In the United States and Canada

Six pairs of Cashmere Holeproof Hose are guaranteed to wear six months! If one or all pairs wear out or break a thread you get new pairs F—R—E—E!

A Guarantee Ticket with six coupons attached goes with every box of six pairs. If a pair wears out, send it back with one coupon. If two pairs wear out, send two coupons, etc.

24,700,000 Pairs

All six pairs will probably outlast the guarantee. 95% of our total output for the past thirteen years has worn longer than six months. That amounts to 24,700,000 pairs!

FAMOUS
Holeproof Hosiery
FOR MEN WOMEN AND CHILDREN

Send Trial Order

Use the coupon below. Send in your order. Note their convenience. "Holeproof" are made in two grades for men, in black, tan and navy blue. Medium at \$2 for six pairs and fine at \$3 for six pairs. Women's Cashmere Holeproof Stockings (black or tan) \$3 for six pairs. Children's Holeproof Stockings, 3 pairs guaranteed 3 months, \$1.00. Only one size in a box. Colors alike or assorted, as you desire. Indicate on the coupon the color, weight, size and kind you want and send the money in any convenient way. Thousands buy from us this way. We guarantee satisfaction as well as the hose.



Reg. U. S. Pat. Office, 1908
HOLEPROOF HOSIERY CO. OF CANADA, Ltd.
157 Bond St., London, Canada

Are Your Hose Insured?

A Wonderful Yarn

We pay the top market price for the yarn used in Holeproof Hose. But our hose wear as no others do. We could buy common yarn for less than half what we pay, but our wear is our feature. We would not dare lessen it.

\$60,000 a Year for Inspection

We spend \$60,000 a year just to see that each pair of "Holeproof" is perfection, for we cannot afford to replace many pairs. The million people who wear "Holeproof" are used to a wonderful quality. We cannot chance disappointing them.

The figures above refer to the entire Holeproof business, both in the States and Canada.

Trial Box Order Coupon

HOLEPROOF HOSIERY CO. OF CANADA, Ltd.
157 Bond St., London, Can.

Gentlemen: I enclose \$ _____ for which send me one box of Holeproof Hose for _____ (state whether for men, women or children). Size _____ Color _____ Weight _____

Name _____ Street _____ City _____ Province _____

(405)

As We Journey On.

(By L. H. Holmes.)

I had walked the platform, read a newspaper from cover to cover (including advertisements); stretched, yawned, in fact had done everything to put in the time; and still the same ugly little station greeted my view from the window.

It was very cold; the train was full of sickening, sooty smoke, and worst of all we were already an hour late.

"Really," I thought, "this is worse than the 'slow train through Arkansas.' I felt like finishing the journey on foot; but, like the traveller in the above book, I was not expected until train-time."

Finally we began to move. I was so pleased with the change, I looked around to see how the other passengers were taking it.

I saw a little boy sitting just across the aisle from me, whom I had not noticed before. There seemed something unusual about the little fellow, and I began to take stock of him. He was rather poorly dressed. A shabby little suit, home-knitted scarf, mittens and cap, completed his outfit.

He had a big paper bag on the seat beside him, which he felt and opened from time to time as if to assure himself the contents had not vanished. He was very quiet, and looked straight ahead, but I could see his face break into smiles. I felt like knowing the little fellow better, so I slipped over beside him.

"Hello, little chap, as you and I are travelling alone, and as I like little boys very much, I thought we could have a nice chat."

He turned with a wonderfully sweet smile, and for the first time I saw his great sightless eyes!

My heart seemed to skip a beat, a terrible tight feeling came into my throat, and I found it difficult to frame my next question.

"Are you going away to spend Christmas, dear?"

"Oh, no, mister, I am going home! and, oh, I am so glad, I can hardly wait until I get there! I missed my train this morning, and I am afraid mother will be terribly anxious about me, for I am blind, you know."

I coughed uneasily, and asked him where he had got on the train.

"A nice young man put me on at Y—. He found me this morning when I had missed my train, and took me home and gave me my dinner. His mother was a nice lady, and he bought me all this" (touching the precious paper-bag). "I know he is good, for he was so nice to me."

A mist swam before my eyes, and I could not trust myself to speak.

"I am so glad to go home," he resumed, "and so glad Christmas is so near. You know, I go to the blind school; they teach us to do all sorts of things, and learn to be useful. I don't like being away from home, though," he concluded, wistfully.

"How long have you been blind?" I asked.

"Always—I was born blind, mister." Born blind! This child of ten with all his life before him!

My thoughts flew back to the time of his birth. I fancied the joy of his parents when this little boy was born. How proud and happy his mother must have been to picture and plan the future of the little babe who nestled in her arms—and then the terrible shock when his blindness would be revealed. The heartache! The agony! The wild love for him! For I feel sure a mother loves her afflicted child the best. And even now, how hard it must be to him away from home, at the mercy of strangers, away from her love and care. Likely she has to stint and save to keep him at this school, for the child's clothes showed poverty.

But the young philosopher at my side brought me back to the present, saying: "Do you know, mister, sometimes I wish

I had been able to see just for a little while, so I would know what things look like. But then perhaps it is better to be born blind; then we don't know what we miss."

Speaking of his affliction seemed quite natural. It was just as he had said, he did not realize how much he missed in life. However, I tried to turn his thoughts in another direction. So we talked pleasantly about Christmas, home, school, and all sorts of things.

He was not fond of arithmetic, he said, but he guessed it was a good thing to know how to count money. What he liked best was music. He was going to study music later on. He had heard of great musicians who were blind.

Always the same sweet smile was on his face; and as I watched him I thought how we, "who walk in the light," forgot our manifold blessings.

This little child who had lived always in darkness, had never seen the blue sky, the birds, and flowers, above all, the faces of those he loved, could smile and hope!

Finally, my station was called. I put my little friend in charge of the conductor. When I bade him good-bye, he said, "Good-bye, mister, I know you are a good man, for you have been so kind to me." I could only reply by pressing his hand, but I am sure he understood.

And as I left the train I offered up a silent prayer to Him Who came into the world "that they which see not, might see," to watch over and protect my little blind friend.

The Roundabout Club

Two more of the prize essays are given to-day. The others will follow in a later issue.

The Greatest Movement in the World To-day.

(A prize essay.)

To most people who are privileged to live within the bounds of Christendom, I think it is plainly evident that the greatest movement of modern history is the evangelization of the world. It is greatest in its motive, object, and benefit, and in the message which it voices to us.

Its motive is simply love to Christ. As He Himself expressed it, if we love Him, we will keep His commandments, and one of those commands which have rung, through the ages is, "Go ye into all the world and preach the gospel."

The object of this struggle for the religious championship of the world, was the mission of our Saviour's life,—the vindication of His kingdom to the dying needs of man. It is a desire to carry on that work which He reorganized in His Life, Death, and Resurrection. The importance of a movement must also be determined by the benefits derived therefrom, and the benefits of Christianity are almost unspeakable. Take away that "righteousness and peace and joy," which the kingdom of God affords in the blessings of hope for time and eternity, and we have nothing. These benefits are only obtainable in the dissemination of Christ's religion.

The message of Christianity drives home to us the presence of Divine leadership. As Moses stretched a pathway through the Red Sea for the chosen hosts of the Lord to walk upon, so in recent times has that impenetrable sea of ignorance and prejudice been waved aside, and the intrepid missionaries, "shod with the preparation of the gospel of peace," have pierced the very heart of heathendom. Does history at any time record a more miraculous instance of God's superhuman power?

Again, from the fore-front of the Christian Church, there comes an intimation of privilege. Is not this story of world-wide Christian activity the

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voice of Christ to His bride, revealing His personal desires, which she might feel a noble privilege to obey? It is said that every generation has its message to the world. What will the present generation have done for the advancement of His kingdom? In conclusion, in the final analysis, what will we have done individually to aid in the consummation of His own express commands? ENOCH ARDEN. Grey Co., Ont.

Peace.

(A prize essay.)

It may seem strange to call attention to the Peace Movement now when our Premier has so recently planned to expend money on battleships amounting to nearly five dollars per capita, if levied as a tax on the people of Canada. We have learned, however, that while things may look very dark and unpromising on the surface, underneath there may be an influence at work which is subtly, quietly changing the whole.

But why the greatest? Because it is something altogether unprecedented; it is a product of modern times; it is something portentous; it is new! There has never been the like of it in the world before. It is something that has evolved slowly. Probably men have wished for it long and long ago, but it could come only when our state of civilization was fit to receive it. It is the greatest in the immense breadth of its influence, and the innumerable host of persons who are affected by it.

A great deal has already been accomplished. At what other period of the world's history have two of the greatest nations agreed to settle all differences without war? When were there ever so many delicate and important matters settled peaceably by arbitration instead of with war and bloodshed?

Andrew Carnegie gave ten millions to be used for this cause. The Nobel peace prize is given yearly to the man who has most signally contributed to this great end, World Peace.

What does this all mean? That the great men, the leaders of the people are altogether tired of war; that if by peaceful methods all international differences could be settled they would wish to have it so; and if the masses wanted the same, undividedly, there would be no more strife. But that is where all the difficulty arises. There is so much jingoism nowadays to inflame people's minds, cheap, hollow jingoism, that sounds as though it came from the lips of a half-grown, empty-headed boy. But Peace can not always be kept in the background. However, she may seem to disappear in the present unrest, we all have faith that she shall appear again triumphant. We do not understand how it shall happen, or how the present difficulties shall be overcome, but we do believe that a time will come when the Prince of Peace shall guide the footsteps of the nations, "that they shall not learn war any more." TAPS. Wentworth Co., Ont.

In connection with the above essay, the following from an article in "The Independent," by Wm. T. Ellis, may be read with interest by "Taps" and others:

IF PEACE PREVAILED.

My thesis is the difference that would be revealed on the face of the earth if universal peace prevailed and international arbitration ruled. Such a prospect almost staggers the imagination. It runs in many directions, and holds a vision of a new earth. To make the proposition concrete, let me go back to the neighborhood of the Garden of Eden.

The cradle of the race is now a desert waste. Once the center of world civilization, lower Mesopotamia is "the abomination of desolation." Aside from the luxuriant palms along the Tigris and Euphrates rivers, a few decadent cities and occasional villages on the banks, all is drear and abject desert. The fertility of ancient Mesopotamia is no new story to the educated reader. Herodotus declared that he could not tell the whole truth about the productiveness of this region lest he should not be believed.

Yet as I stood on the highest tower of the ruins of Babylon, and looked out upon the waste in every direction, except the cluster of palms near the house of the German excavators, the whimsical notion came to me that if Nebuchadne-

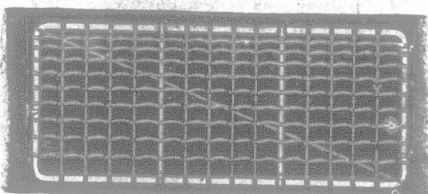
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Galvanized frames, 25c extra. Freight paid if ordered with fencing or in lots of three or more, to points in Old Ontario, south of North Bay. Outside points as per advances above. Get my Cut Prices on Poultry Fence, Roofing, Barbed Wire, Waggon, Steel Wheels, In-

cubators, Manure Spreaders, Disc Harrows and Cultivators. Write me to-day. Send your order for Fence and Gates. You'll be glad you did.

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- 31 CENTS A ROD for Ten strands, 50 inches high. Graduated spacing between line wires, from 3 inches to 9 inches. Extra heavy farm fence. 29 CENTS A ROD for Nine strands, 48 inches high. Graduated spacing between line wires, from 4 inches to 9 inches. Heavy farm fence. 27 CENTS A ROD for Eight strands, 45 inches high. Graduated spacing between line wires, from 4 inches to 9 inches. Splendid farm fence. 24 CENTS A ROD for Seven strands, 45 inches high. Graduated spacing between line wires, from 5 inches to 11 inches. Extra heavy stock fence. 21 CENTS A ROD for Six strands, 40 inches high. Graduated spacing between line wires, from 7 inches to 9 inches. Heavy stock fence. 19 CENTS A ROD for Five strands, 40 inches high. Graduated spacing between line wires, from 9 inches to 16 inches. Good stock fence.

If you want the eight, nine or ten strand fence, with 12 stays to the rod, 16 1/2 inches apart—add 3c per rod.

SATISFIED? YES, INDEED!

Theo. W. Little, Bartlett's Mills, N. B.—"I was well pleased with that wire fencing which I bought from you last summer, and I would like to get some more." John M. Walsh, R. R. No. 2, Indian River, Ont.—"It is a great fence." A. H. Campbell, Hartly.—"You used me all right in last transaction. The fence is good and looks well." Floyd Preston, Frankford, Ont., says—I got the fence up in good shape. It is a winner." Albert Crick, Sunbridge, Ont.—"Your fence outshines other fences here for quality and stability."

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zar were turned out to grass to-day he would die of starvation. This region of the Tigris-Euphrates Valley was once the granary of the known world, as well as the capital of civilization. Where cotton and wool once grew in abundance and great cities flourished, the degenerate marsh Arabs hold sway, except that they are terrorized by the roving Bedouins. Dotted the landscape of this dreary desert are "high towers" of the Psalmist, the defenses to which the villagers flee when the warring tribes appear. What makes Babylonia waste? "The

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All I Ask is Love.
 Angel's Prayer (Reverie).
 Another Rag (Song).
 At the Maiden Ball.
 Alexander's Ragtime Band.
 a Girl Was Made to Love.
 All About Her Blanket Day.
 All Night Long.
 As Long as the Shamrock
 Grows Green.
 Angel Kisses (Reverie).
 A Southern Dream (Waltz).
 America Forever (March).
 And a Little Child Shall
 Lead Them.
 Army and Navy. (Two-Step).
 A Trip to Niagara.
 Angels of Night. (Reverie).
 Arctic Waltz.
 Billy Bonce Your Baby Doll.
 Burning of Rome. (March).
 Beautiful Doll Good-bye.
 Bless Your Loving Heart.
 By the Old Cathedral Door.
 Bridal Roses. (Waltz).
 I Was Born With Nothing.
 Beautiful Star of Heaven.
 (Reverie).
 Baby Rose.
 Bring Back My Lovin' Man.
 By the Light of the Silvery
 Moon.
 Chicken Rag.
 Charlot Race. (March).
 Casey Jones Went Down on
 the Robert E. Lee.
 Carnival King. (March).
 Castelano. (Waltz).
 Carnival Waltz.
 Canadian Hustler. (March).
 Chills and Fever Rag.
 Captivating Kitty Green.
 Charm D'Amour Waltzes.
 College Caps. (Two-Step).
 Cupid's Message. (Inst.)
 Curly Hair Song.
 Dassy Jones.
 Constellation. (Reverie by
 Morrison).
 Canadian Bay Scout. (March
 Song).
 Celeste. (Waltz).
 College Rag.
 Chimes at Twilight. (Re-
 verie).
 Chicken Reel. (Buck Dance).
 Chitta. Waltz.
 Chanticleer. (Two-Step).
 Dream of Long Ago.
 Dreaming of Mother and
 Home Sweet Home.
 Dreams of Long Ago.
 Down in the Meadow, Where
 the Daisies Grow.
 Dream Waltz.
 Daddy Has a Sweetheart and
 Mother is Her Name.
 Dream Kisses. (Intermezzo).
 Dream Girl. (Waltz).
 Dolly's Reel. (Buck Dance).
 Everybody's Doing It.
 Everybody Two-Step. (Song).
 Entertaining Rag.
 Every Adam Has an Eve.
 Emblem of Old Brin.
 Four Little Blackberries.
 (Schottische).
 Fire Alarm. (March).
 Fairy Kisses. (Waltz).
 Fire Drill March.
 Fama-Bella. (Spanish Waltz).
 For Kiltsey and You.
 Fairy Moon.
 Flirtation. (Caprice).
 Frat. (College March).
 Ghost of the Violin.
 Garden of Roses. (Vocal).
 Gee I Like Music With My
 Measle.
 Garland of Old Fashioned
 Roses.
 Garden of Love. (Waltzes).
 Good Bye Rose.
 Garden of Dreams. (Reverie).
 Gee! But I'm Lonesome.
 It's Great to Meet a Friend.
 Good-Night Nurse.
 Garden of Roses. (Inst.)
 Hitty Koo.
 Hen Ockle Rag.
 Hula. (Two-Step).
 Hot Chestnuts. (Rag).
 Hold Me Just a Little Closer.
 Here's to the Friend in
 Stormy Weather.
 He's Got My Goat.
 Hunter's March.
 Hanky Panky Glide.
 Honey Man.
 Hypnotic Rag.
 Harmony Rag.
 Harmony of Love. (Waltz).
 Is It Love or Admiration.
 I'd Like to Live in Love-
 land.
 I Wonder How the Old Folks
 are at Home?
 I Would Like to Try It.
 I Can't Be True to One Lit-
 tle Girl.
 I'd Do As Much for You.
 I Want to be in Dixie.
 I've Got the Finest Man.
 If All My Dreams Were
 Made of Gold.
 If You Talk in Your Sleep.
 I'm the Guy.
 I'll Be Back in the Sweet
 Bra-and-Bra.

In the Gleaming Was the
 Song the Song to Me.
 I Want a Girl.
 I'd Live My Life for You.
 In the Harbour of Home
 Sweet Home.
 I've Got You Steve.
 In the Golden Harvest Time.
 If We Were Alone.
 I Love the Name of Mother.
 It's the Risk Every Swinging.
 Italian Romance.
 I Wonder How the Old Folks
 Are at Home.
 I've Been Longing Dear for
 You.
 I Loved you the First Time
 I Met You.
 In Dear Old Sweetheart Days.
 I Want a Boy to Love Me.
 I'm Feeling Blue. (Song).
 I Love It.
 I'd Give You All You Ask.
 I Want a Little Loving
 Sometimes.
 If You Had Asked Me Just
 a Little Sooner.
 I'm Going Back to Work
 Down on the Farm.
 If I Only Had a Home Sweet
 Home.
 Just an Old Sweetheart of
 Mine.
 Juno Waltzes.
 Just Across the Bridge of
 Years.
 Just You.
 Just Because I Love You So.
 Kentucky Sue.
 Kentucky Days. (Song).
 Kiss of Spring. (Waltz).
 Kings and Queens. March.
 Keep Away from the Fellow
 With the Automobile.
 Kate Killarney.
 K-I-E-T-Waltz.
 Lord Have Mercy on a Mar-
 ried Man.
 Love's Golden Star. (Re-
 verie).
 Love and Passion. (Reverie).
 Lady Angelina.
 Love and Devotion. (Re-
 verie).
 Let's Make Love While the
 Moon Shines.
 Let 'er Go, March.
 Mine. (High Class Ballad).
 Mary Was My Mother's
 Name.
 Miss Liberty. Two-Step.
 Midnight Flyer. (March).
 Midnight Fire Alarm. (March).
 My Rosary of Dreams.
 Maple Leaf Rag.
 Mandy Lou.
 Memories of the Old School
 Bell.
 Moonbeams on the Lake.
 (Reverie).
 Morning Star. (Reverie).
 Moon Kisses. (Reverie).
 Meet Me To-Night in Dream-
 land. (Waltz).
 Mandy Ragtime Waltz.
 Meditation. (Reverie by Mor-
 rison).
 Meet Me Where the Love
 Star Gleams.
 Maybe That's Why I'm
 Lonely.
 Moonlight Waltz.
 Moonlight Dear.
 My Georgiana Lou.
 My Every Thought is of You.
 Meet Me To-Night in Dream-
 land. (Song).
 New York Rag.
 Napoleon's Last Charge.
 No Girl Can Take my Old
 Girl's Place.
 Nobody Knows Where the
 Old Man Goes.
 O You Rag!
 Only Baby Fingers.
 O'Brien Has No Place to Go.
 On the Mississippi.
 O What a Beautiful Dream.
 O You Chicksen.
 O You Chrens Day.
 O Mr. Dream Man.
 O You Beautiful Doll.
 Purlina Waltz.
 Pride of the Regiment.
 Put on Your Old Grey Bon-
 net.
 Please Don't Take My Lovin'
 Man Away.
 Paul Revere's Ride. (March).
 Parisienne. Song.
 Parisienne Cow Boy Joe.
 Rags and Pearls. Rag.
 Red Cross. Two-Step.
 Roses and Violets. (Waltz).
 Raggy Rag. (Two-Step).
 Rag, Tags, Rag. (Inst.)
 Red Wing. Vocal.
 Red Rap. on Your Minstrel
 Bones.
 Rum Tum Tiddle. (Song).
 Railroad Rag.
 Ring ting a ling. (Song).
 Roaring Volcano. (March).
 Ring Out Wild Bells. (Inst.)
 Row, Row, Row.

Somebody's Coming to Town.
 Somebody Else is Getting It.
 Songs My Mother Used to
 Sing.
 Signe Bell. (March).
 Signal From Mars. (March).
 Storm King. (March).
 Sun Kissed Roses. (Waltz).
 Some Day When Dreams
 Come True.
 Star of Hope. (Reverie).
 Scarlet Lily. (Three-Step).
 Sign of Roses. (Waltz).
 Silver Spur. (Two-Step).
 Scattered Roses. (Waltz).
 Strolling. (Song).
 Silver Ball. (Vocal).
 Sweetheart Waltz.
 Sing Me a Song.
 School Life. (Two-Step).
 Silver Bell. (Inst.)
 Some Rag. (Inst.)
 Silver Threads Among the
 Gold.
 That's a Funny Place to
 Kiss a Girl.
 Triumphant Banner March.
 The White Whirl Waltzes.
 The Dashing Cavalier. (Inst.)
 Take Me in Your Arms.
 Those Wonderful Eyes.
 Take a Tip From Father.
 The Chimes. (Reverie).
 That's How I Need You.
 Take Me Back to the Gar-
 den of Love.
 That Haunting Melody.
 The Matrimony Rag.
 True Love Can Never Die.
 Till the Sands of the Desert
 Grow Cold.
 Twilight Waltz.
 Toboggan Rag.
 Take Off Your Hat to Prin-
 cess Pat.
 Take Me Back to Dreamland.
 The Best Time Melodies.
 Texas Dance.
 That Gaby Glide.
 Take Me to the Cabaret.
 That Precious Little Thing
 Called Love.
 They Always Pick on Me.
 The Harbour of Love.
 The Outland. (New Dance).
 The Derby. (Two-Step).
 Tombois. (Two-Step).
 There's a Mother Old and
 Grey.
 That Mellow-Cello Melody.
 Turkey Trot. (Inst.)
 There's Nothing Like a Me-
 ther's Love.
 The Band Played Nearer My
 God to Thee.
 That Mellow Melody. (Song).
 Vision D'Amour Waltz.
 Village Barn Dance.
 Venetian Waters. Waltz.
 Vision of Beauty Waltz.
 What Made the Boys Like
 Rosie.
 Welter.
 When the Sunset Turns the
 Mountain Tops to Gold.
 When They Gather in the
 Sheaves.
 Wreck of the Julie Plants.
 Wilbur Waltz.
 When Broadway Was a Pas-
 sa-delle.
 Wisteria Waltzes.
 When the Old Folks Were
 Young Folks.
 Why Did You Make Me
 Care.
 When You Tell the Sweetest
 Story.
 Whistle It.
 Waiting for the Robert E.
 Lee.
 Won't You Let Me Take You
 Out for a Ride.
 When I Get You Alone To-
 Night.
 Where the River Shannon
 Flows.
 Where are the Scenes of
 Yesterday.
 When I Walk With You.
 When the Dew is on the
 Rose.
 When I Was 21 and You
 Were Sweet 16.
 Where the Silvery Colorado
 Winds Its Way.
 Will the Roses Bloom in
 Heaven?
 Warming Up in Dixie.
 (March).
 When the Midnight Choo-
 choo Leaves for Alabam.
 Wedding Ring Waltz.
 Wedding of the Fairies.
 (Inst.)
 When the Harbour Lights
 are Burning.
 We've Had a Lovely Time
 —So Long, Good-bye.
 Your Daddy Did the Same
 Thing 50 Years Ago.
 You Can't Expect Kisses
 From Me.
 You are the Ideal of my
 Dreams.
 You and I and the Moon.
 You are the Sweetest Girl
 in all the World to Me.

BEST RESULTS ARE OBTAINED FROM ADS. IN "ADVOCATE."

Turk," comes quick answer. Yes, but why, in this day of science and of the high prices of foodstuffs, is it not restored to fertility? The irrigation scheme of Sir William Willcocks is perfectly feasible. When we went over his plans in Bagdad, he told me that there would be room within five years for twelve million prosperous people in the irrigated area. Upon this project Sir John Jackson is now at work. He, like Sir William, must be haunted by the twin specters of lack of safety and lack of population.

The land may be restored, but where are the essential people? Germany wants Mesopotamia, but she cannot colonize it with white people. The two obvious sources of population are overcrowded India and overcrowded Egypt, where agricultural peasants, accustomed to irrigation, may be had for the beckoning; but even these humble natives will not go from under the British flag to the sure terrors of Arabia.

It is perfectly clear, as every statesman will admit, that Germany could possess and cultivate Mesopotamia without opposition, were it not for the threat to India contained in this colonization. The ancient bugaboo of war has laid a palsying hand upon the garden spot. Remove the menace of militarism, and the Bagdad Railway would swiftly go through to completion, with the co-operation of the world. The bitumen wells, from which Noah got the pitch for his ark, and Nebuchadnezzar the plaster for his palace, would be available for the highways of Berlin and London. Civilization would police Arabia in the interests of all mankind. Now, the only immediate prospect is for England to take Mesopotamia, as well as the rest of Asia, by a tour de force. Germany's military ambition is thus seen to lie athwart her commercial advantage.

The traveller in Babylonia naturally wants to go across to the wonderful ruins of Persepolis and Susa in Persia. The consuls will not let him do so, because of the insecurity of this whole region. So he finds himself confronting the whole problem of Persia, the ancient nation that once ruled the world. Here is an historic people whose national life has already been doomed by rival military powers. If these did not distrust each other, Persia might be given a chance to work out her own destiny on her own soil. Neither Russia nor Britain needs new territory; both have now more than they know what to do with. But militarism is the boggy on the backs of both of them, driving them forward over the dearest national sentiments of weaker people. Persia's race is run, even at the hour of an awakening national sentiment and a modern conscience.

While our mind is on this historic section of the earth, about which we learned from the Bible before we began to read history, we find ourselves reverting to that little strip of land along the Mediterranean called Palestine. Here Turkey is kept in power, and permitted to oppress and baffle, all because of the military jealousies of Europe. If international right and rule prevail, Syria would be free for cultivation and settlement by the fit. The Jews would have a chance to prove or disprove the practicability of their dreams of Zionism. The traveller and the scholar could visit and study, unhindered, these dearest scenes of human history. Syria, upper Mesopotamia, and Asia Minor, all wait only for established order and stable government in order to prove themselves once more a fit setting for the glories of civilization like unto that which they knew two thousand years ago. From Paul's city of Tarsus, across the Cilician plain, back through the Cilician Gates into Anatolia, that most famous battleground of history, and the home of great cities of classic antiquity, stretches a region which the world would again find a granary, and new and modern cities would demonstrate that prosperity waits on peace.

Passing over the familiar conditions in Europe, so often and so aptly described as an armed camp, we proceed to the Far East, beginning with inaccessible Tibet. The Dalai Lama himself told me that he was eager to have his country open for travel and trade and the learning of the West. Tibet is ready for exploitation, but three military powers are

contending for it, none of them with the welfare of Tibet as its objective.

Of far greater importance is the situation in Mongolia and Manchuria. There is nothing in the newspaper reports to give the average reader a conception of the vastness and fertility and promise of these great stretches of territory. They are like our American Northwest, a fat land. To the traveller, every mile spells possibility. In them he reads hope, not only for the congested Chinese communities to the South, but also for the whole world's trade. China's migration into this region has begun, and if there were an international care to preserve Chinese rights, the world would have a demonstration within a generation of what the Chinese could do in a new country.

In point of fact, however, the region is overrun with the soldiers of two nations, neither of whom has any right there. Russia and Japan have made a robber's agreement for the exploitation of this great section of the globe's surface. Justice has been flouted, international agreements despised, and in the absence of a compulsory court of arbitration, a great war may at any time break out here. As these lines are written, the cables tell of the dispatch of a Chinese expedition to meet Russian aggression in Mongolia. In that simple statement we perceive the transformation of the great peace nation of earth, China, into a military people, as if China had not burdens enough to bear without this dread load of militarism.

Look whichever way we may on the world's social horizon, and we find the soldier. He is an ominous figure; he portends hurt to nearly every phase of human life: he prevents the tilling of the soil whose fruits the world needs; his sword is a barrier to the building of homes and the rearing of families. The material and social and moral progress of the human race is hindered by the soldier, set apart, at cruel cost to the poor, to execute, in antiquated fashion, the bloody will of chauvinists. The free interflow of the day's tides of neighborliness is checked by the soldier. He is an enemy of the world spirit of this twentieth century, a foe, and not a brother, to humanity.

The Beaver Circle.

OUR SENIOR BEAVERS.

[For all pupils from Senior Third to Continuation Classes, inclusive.]

A Boy's First Room.

I've got a room, now, by myself,
 A room my very own,
 It has a door that I can shut,
 And be there all alone;
 It has a shelf, a closet, too,
 A window just for me;

And hooks where I can keep my clothes
 As neat as neat can be.
 A lovely paper's on the wall;
 A rug is on the floor—
 If I had known how fine it was,
 I'd had a room before.

I like to go there after school,
 Way off from every one;
 I felt—well—sort of scared at first,
 But now I think it's fun.
 The voices of the folks downstairs
 Seem faint and far away.

I hear the rain upon the roof;
 I watch the birds at play;
 Oh, yes, it's often very still,
 At night there's not a sound—
 But I let mother in, of course,
 When bedtime comes around.

—Youth's Companion.

Note.

All letters for Beaver Circle should be addressed, "The Beaver Circle," "The Farmer's Advocate," London, Ont.

THE POET COWPER.

(A prize letter.)

Dear Puck,—I am very glad that Don Huron introduced the literary idea to the Beaver Circle, and I for one will try and help it along, as I am very fond of

FINANCIAL STATEMENT

OF THE

Mutual Life of Canada

Head Office: WATERLOO, ONT.

For the Year ended 31st December, 1912

CASH ACCOUNT

INCOME		DISBURSEMENTS	
Net Ledger Assets, 31st December, 1911.....	\$17,301,687 83	Death Claims	\$440,453 96
Premiums (Net).....	2,692,199 27	Matured Endowments.....	335,867 00
Interest and Rent.....	1,007,311 31	Surrendered Policies.....	212,530 57
Suspense Account, etc.....	1,054 43	Surplus.....	277,631 29
		Annuities.....	9,403 62
			\$ 1,275,886 44
		Expenses, Taxes, etc.....	615,833 68
		Balance Net Ledger Assets, 31st December,	
		1912.....	19,110,532 72
			\$ 21,002,252 84
	<u>\$21,002,252 84</u>		

BALANCE SHEET

ASSETS		LIABILITIES	
Mortgages	\$11,051,716 34	Reserve, 3½% and 3%	\$ 16,161,753 55
Debentures and Bonds.....	5,058,053 06	Reserve on lapsed policies on which sur-	
Loans on Policies.....	2,516,639 88	render values are claimable	5,294 93
Premium Obligations.....	10,523 08	Death Claims unadjusted	67,360 67
Real Estate.....	229,351 59	Matured Endowments unadjusted	4,566 00
Cash in Banks	280,961 83	Present value of amounts not yet due on	
Cash at Head Office.....	2,151 01	matured instalment policies	114,317 81
Due and Deferred Premiums (net).....	433,711 10	Dividends due Policy-holders.....	8,247 43
Interest due and accrued	488,236 01	Deferred Dividends	19,570 79
		Premiums and Interest paid in advance....	17,043 94
		Taxes due and accrued	18,505 01
		Due for medical fees and sundry accounts..	15,063 81
		Credit Ledger Balances	38,864 97
		Surplus, 31st December, 1912.....	3,600,755 89
	<u>\$20,071,344 80</u>		\$ 20,071,344 80

Audited and found correct,

J. M. SCULLY, F.C.A.,
Auditor.

GEO. WEGENAST,
Managing Director

Waterloo, January 28, 1913

New business (Canadian) written in 1912.....	\$ 11,121,424	Increase over 1911.....	\$1,094,050
Assurance in force, December 31, 1912.....	77,921,144	Increase over 1911.....	6,900,374
Assets, December 31, 1912	20,071,345	Increase over 1911.....	1,009,498
Surplus, Government standard, Dec. 31, 1912 ..	4,388,361	Increase over 1911.....	735,238
Surplus earned in 1912	838,875	Increase over 1911.....	136,818

Surplus earnings for the year amounted to
31.16 per cent. of premiums received.

FOR SALE.

One Registered Holstein bull, 22 months old, large, straight, well veined and of the best breeding in America; dam now in test, "Record-of-Performance" making an extra large record; secure this bull at once for less than half his value. W. O. Palmer, St. Sebastien, Co. Iberville, Quebec.

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Jno. Elder, Hensall, Ont.

literature. At school we have been studying Wm. Cowper's poems, and intend to soon take up Thomas Gray's. Somehow we cannot but feel sorry for Mr. Cowper, whose temporary fits of insanity seemed to mar the happiness of his life. Still, he had many true friends to amuse him through his illness. The last poem that we studied, "Yardley Oak," was written about an oak in Yardley Chase, five miles from Weston, in England, which Mr. Cowper loved to visit. It was supposed to have been planted by Judith, daughter of William the Conqueror, and when the poem was written the tree was said to be over eight centuries old. It had been almost ruined one time by tourists, who either carved their names or took away with them a piece of the historic oak. So a notice was posted on the tree by which any person found injuring it in any way would be prosecuted according to law. The tree was said to be twenty-two feet six inches in girth.

Perhaps a quotation from Mr. Cowper's poem, "Lines on Receipt of My Mother's Picture," would inform those Beavers who do not know him of his character. Mr. Cowper is said to be able to trace his ancestors from Royalty and the Church.

"My boast is not that I deduce my birth
From loins enthroned and rulers of the earth,
But higher far my proud pretensions rise,
The sons of parents passed into the skies."
I. WINIFRED COLWELL (age 15).
Brookville Station, St. John Co., N.B.

AN AUTOBIOGRAPHY OF A DOG. (A prize letter.)

I am a small black dog called Towser. I live in a foreign country where there are huge mountains and vast forests. My master keeps great herds of cattle, and also great flocks of sheep. This country is just one large stretch of land. There is not a fence to be seen.

When I was old enough to learn something, my master taught me how to mind the cattle and sheep, so as not to let them wander away from home. It took me a good deal of time to learn this, as I was just a young dog. All summer long, from daylight until dark, I was compelled to do this task, but at night my master put all the cattle and sheep in one large shed.

At night when I went to the house, fairly tired out, my master, being very kind, gave me all I wanted to eat. When I had finished my supper, I would gaily run off to my kennel and sleep soundly until dawn of day, when I would have to start my daily task.

As the summer went quickly by and the nights began to get cold, my master said to me, "No more will you have to mind the cattle and sheep this year." At this statement I jumped around and barked with glee. The weather becoming colder and colder as the days went by, my master had to let me sleep in the house, as it was too cold to let me sleep in my kennel out doors.

A forest grew near my master's cottage, and it abounded in valuable animals, so one day I heard a voice say, "Come, Towser, let us go to the woods and hunt for game."

My master shouldered his gun, and I ran along by his side, barking all the way. As I had never gone out in pursuit of wild animals like this before, the shot of the first bullet startled me so that I ran for my life, because I thought someone was trying to shoot me. The hunter never missed me until he was about ready to go home. He stood motionless and called, "Towser! Towser! come here!" with all his might, but all in vain; I did not come. This poor man went home very low-spirited, because he thought a lot of me, and wondered what he would do next summer when he had no dog to watch his cattle and sheep.

I wandered through the whole country trying to find my home. At last, when I had given up all hopes, I lay down under a tree and went to sleep, but when I awoke I looked around and saw my master's cottage in the distance, and my master standing on the doorstep. I ran along down the mountains until I

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came to my home, fairly starved, because I had had nothing to eat but the few wild animals I caught. As I was twice as large as when I went away, my master hardly knew me, but later on he knew I was his faithful old dog.

My master and I lived many long and happy years, but we never went out hunting again. SALLY WATERS, Strathroy, Ont.

What do the Beavers think about hunting and trapping? Here is a subject for discussion. PUCK.

Senior Beavers' Letter Box

Dear Puck and Beavers,—I thought I would send you the snap-shot of the colt and myself. Now, I think I will write and tell you about my dog. He will draw me on the sleigh, and will play ball with me.

I live on a large farm about six miles from Orillia. I go to school every day, and like our teacher fine. Santa Claus did not visit us this Christmas, but I saw him in Orillia. I had a large garden last year. I would like if some of the Beavers would tell me what time to plant cabbage seed in the spring. Well, I guess I will close, wishing the Beavers every success.

BOULTON MARSHALL.

Buy your cabbage seed early, Boulton, and you will find all directions on the back of the package. You may start some of the seed in boxes in the house, or in a hotbed about the latter part of March.

Dear Puck and Beavers,—I live on a farm about ten rods from the school, three miles and three-quarters from the town of Port Elgin, and a mile and a quarter from the post office, North Bruce. I like going to school not too badly. Our teacher is a lady, Miss Lamont. She lives in the school section. I open the school and light the fires. I have a sister and a brother, both older than I. I guess I must close, wishing the Beaver Circle every success. Good-bye.

MOFFATT JAMIESON.
(Age 11, Class Sr. III.)

North Bruce, Ont.

Dear Puck and Beavers,—This is my second letter to your Circle, and I would like to join. My first letter was not in print, so I thought I would try again. My father has taken "The Farmer's Advocate" for years, and likes it very much. I have four sisters and three brothers, who are all grown up. I go to school nearly every day, and I like it fine. The school is only about one-quarter of a mile from our place, that my sister Julia and I go to. I am in the Senior Fourth Class, and expect to try my Entrance this coming summer. Well, Puck and Beavers, my letter is getting long, so I will close, asking you if I can join your garden competition this spring, and wishing your Circle success.

SADIE CARRUTHERS.
(Age 14, Sr. IV.)

Melbourne, Ont.

Certainly you may join the garden competition, Sadie.

Dear Senior Beavers,—As I have written twice and never seen any of my letters, I thought I would write again.

The best to tell about is, "Why We Were Vaccinated." About a week and a half before Christmas, on account of one case of smallpox, school stopped. My, this was annoying! I was so cross, because I like to go to school. Then, when school commenced, I was glad, because it was drawing near exams. Then we stopped again Friday, in the first week of school. Tuesday, January 14th, we were to be vaccinated, so I went up. We had had great fun, but our arms got sore. The doctor said that we were to come to school the 23rd of January to see if our arms were growing, and if they wouldn't grow we would have to be vaccinated over again. My arm got very bad, and itched very much.

VERA SCHWEITZER.
(Age 13, Jr. IV.)

Heidelberg, Ont.

P. S.—The riddle that was sent by Gladys Elsley is—A watermelon.

Dear Puck,—As I have not written to the Beaver Circle for some time, I thought I would send a picture of my colt, which is four months old. I always enjoy reading the letters each week; they are very interesting to me.

LOYD M. GROSE (age 10).

Goldstone, Ont.



Boulton Marshall and His Colt.

Dear Puck and Beavers,—I have just finished reading your lovely letters. I was tempted to write. My father has taken "The Farmer's Advocate" for a couple of years. I have to walk a mile and a half to our school. Our teacher's name is Miss Coulton. We had a little puppy and it used to go down and see an old lady, and one day it was missing. We have another little puppy, and hope not to lose this one. I have had a bad cold, and have been home from school for a week. I have been in bed most all of the time, but I am getting better now, and hope to go to school soon. I wish to ask you one question, and that is, "Was the dressmaking competition for the Junior Beavers?"—be



Lloyd Grose and One of His Pets.

cause my sister is always making doll's dresses. As my letter is rather long, I will close, hoping to see this in print.

MARGARET LARSEN.
(Age 10, Senior IV.)

Arva P. O., Ont.

The Dress Competition was for all Beavers. We intend to have another one some day.

Riddles.

What is the difference between a conductor and a school-teacher? Ans.—The conductor minds the train, and the school-teacher trains the mind.

When does a man rob his wife? Ans.—When he hooks her dress.—Sent by Evelyn S., Sidney Crossing.

As I went out and in again, out from the dead the living came; six there are, and seven there will be. Ans.—A bird flew out of the skull of a dead animal, and looking in I saw a bird's nest with six little birds and one egg in it.—Sent by Lena Crause, Lynden, Ont.

Rebecca of Sunnybrook Farm.

By Kate Douglas Wiggin.
[Serial rights secured from Houghton Mifflin Publishing Company, New York.]
XVII.

Gray Days and Gold

When Rebecca looked back upon the year or two that followed the Simpsons' Thanksgiving party, she could see only certain milestones rising in the quiet pathway of the months.

The first milestone was Christmas Day. It was a fresh, crystal morning, with icicles hanging like dazzling pendants from the trees and a glaze of pale blue on the surface of the snow. The Simpsons' red barn stood out, a glowing mass of color in the white landscape. Rebecca had been busy for weeks before, trying to make a present for each of the seven persons at Sunnybrook Farm, a somewhat difficult proceeding on an expenditure of fifty cents, hoarded by incredible exertion. Success had been achieved, however, and the precious packet had been sent by post two days previous. Miss Sawyer had bought her niece a nice gray squirrel muff and tippet, which was even more unbecoming, if possible, than Rebecca's other articles of wearing apparel; but aunt Jane had made her the loveliest dress of green cashmere, a soft green like that of a young leaf. It was very simply made, but the color delighted the eye. Then there was a beautiful "tattoo" collar from her mother, some scarlet mittens from Mrs. Cobb, and a handkerchief from Emma Jane.

Rebecca herself had fashioned an elaborate tea-cosy with a letter "M" in outline stitch, and a pretty frilled pincushion marked with a "J," for her two aunts, so that taken all together the day would have been an unequivocal success: had nothing else happened; but something else did.

There was a knock at the door at break-

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Windsor, Ont.



fast time, and Rebecca, answering it, was asked if Rebecca Rowena Randall lived there. On being told that she did, he handed her a parcel bearing her name, a parcel which she took like one in a dream and bore into the dining-room.

"It's a present; it must be," she said, looking at it in a dazed sort of way; "but I can't think who it could be from."

"A good way to find out would be to open it," remarked Miss Miranda.

The parcel being untied proved to have two smaller packages within, and Rebecca opened with trembling fingers the one addressed to her. Anybody's fingers would have trembled. There was a case which, when the cover was lifted, disclosed a long chain of delicate pink coral beads,—a chain ending in a cross made of coral rosebuds. A card with "Merry Christmas from Mr. Aladdin" lay under the cross.

"Of all things!" exclaimed the two old ladies, rising in their seats. "Who sent it?"

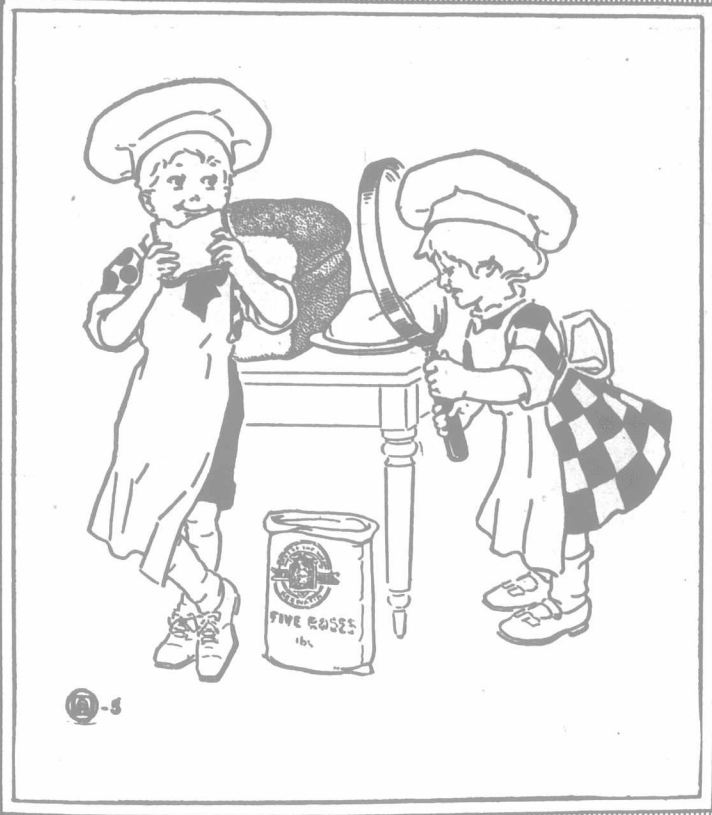
"Mr. Ladd," said Rebecca under her breath.

"Adam Ladd! Well I never! Don't you remember Ellen Burnham said he was going to send Rebecca a Christmas present But I never supposed he'd think of it again," said Jane. "What's the other package?"

It proved to be a silver chain with a blue enamel locket on it, marked for Emma Jane. That added the last touch—to have him remember them both! There was a letter also, which ran:—

DEAR MISS REBECCA ROWENA,—My idea of a Christmas present is something entirely unnecessary and useless. I have always noticed when I give this sort of thing that people love it, so I hope I have not chosen wrong for you and your friend. You must wear your chain this afternoon, please, and let me see it on your neck, for I am coming over in my new sleigh to take you both to drive. My aunt is delighted with the soap.

Sincerely your friend,
ADAM LADD.



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Delicately *creamy* is FIVE ROSES flour.
Because it is *not bleached*, don't you see.
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Looks good.
And *is* good.
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"Well, well!" cried Miss Jane, "isn't that kind of him? He's very fond of children, Lyddy Burnham says. Now eat your breakfast, Rebecca, and after we've done the dishes you can over to Emma's and give her her chain—What's the matter, child?"

Rebecca's emotions seemed always to be stored, as it were, in adjoining compartments, and to be continually getting mixed. At this moment, though her joy was too deep for words, her bread and butter almost choked her, and at intervals a tear stole furtively down her cheek.

Mr. Ladd called as he promised, and made the acquaintance of the aunts, understanding them both in five minutes as well as if he had known them for years. On a footstool near the open fire sat Rebecca, silent and shy, so conscious of her fine apparel and the presence of aunt Miranda that she could not utter a word. It was one of her "beauty days." Happiness, excitement, the color of the green dress, and the touch of lovely pink in the coral necklace had transformed the little brown wren for the time into a bird of plumage, and Adam Ladd watched her with evident satisfaction. Then there was the sleigh ride, during which she found her tongue and chattered like any magpie, and so ended that glorious Christmas Day; and many and many a night thereafter did Rebecca go to sleep with the precious coral chain under her pillow, one hand always upon it to be certain that it was safe.

Another milestone was the departure of the Simpsons from Riverboro, bag and baggage, the banquet lamp being their most conspicuous possession. It was delightful to be rid of Seesaw's hateful presence; but otherwise the loss of several playmates at one fell swoop made rather a gap in Riverboro's "younger set," and Rebecca was obliged to make friends with the Robinson baby, he being the only long-clothes child in the village that winter. The faithful Seesaw had called at the side door of the brick house on the evening before his departure, and when Rebecca answered his knock, stammered solemnly, "Can I k-keep compny with you when you g-grow up?" "Certainly not," replied Rebecca, closing the door somewhat too speedily upon her precocious swain.

Mr. Simpson had come home in time to move his wife and children back to the town that had given them birth, a town by no means waiting with open arms to receive them. The Simpsons' moving was presided over by the village authorities and somewhat anxiously watched by the entire neighborhood, but in spite of all precautions a pulpit chair, several kerosene lamps, and a small stove disappeared from the church and were successfully swapped in the course of Mr. Simpson's driving tour from the old home to the new. It gave Rebecca and Emma Jane some hours of sorrow to learn that a certain village in the wake of Abner Simpson's line of progress had acquired, through the medium of an ambitious young minister, a magnificent lamp for its new church parlors. No money changed hands in the operation, for the minister succeeded in getting the lamp in return for an old bicycle. The only pleasant feature of the whole affair was that Mr. Simpson, wholly unable to console his offspring for the loss of the beloved object, mounted the bicycle and rode away on it, not to be seen or heard of again for many a long day.

The year was notable also as being the one in which Rebecca shot up like a young tree. She had seemingly never grown an inch since she was ten years old, but once started she attended to growing precisely as she did other things,—with such energy, that Miss Jane did nothing for months but lengthen skirts, sleeves, and waists. In spite of all the arts known to a thrifty New England woman, the limit of letting down and piecing down was reached at last, and the dresses were sent to Sunnybrook Farm to be made over for Jenny.

There was another milestone, a sad one, marking a little grave under a willow tree at Sunnybrook Farm. Mira, the baby of the Randall family, died, and Rebecca went home for a fortnight's visit. The sight of the small still shape that had been Mira, the baby who had been her special charge ever since her birth, woke into being a host of new thoughts and wonderments; for it is sometimes the mystery of death that brings one to a consciousness of the still greater mystery of life.



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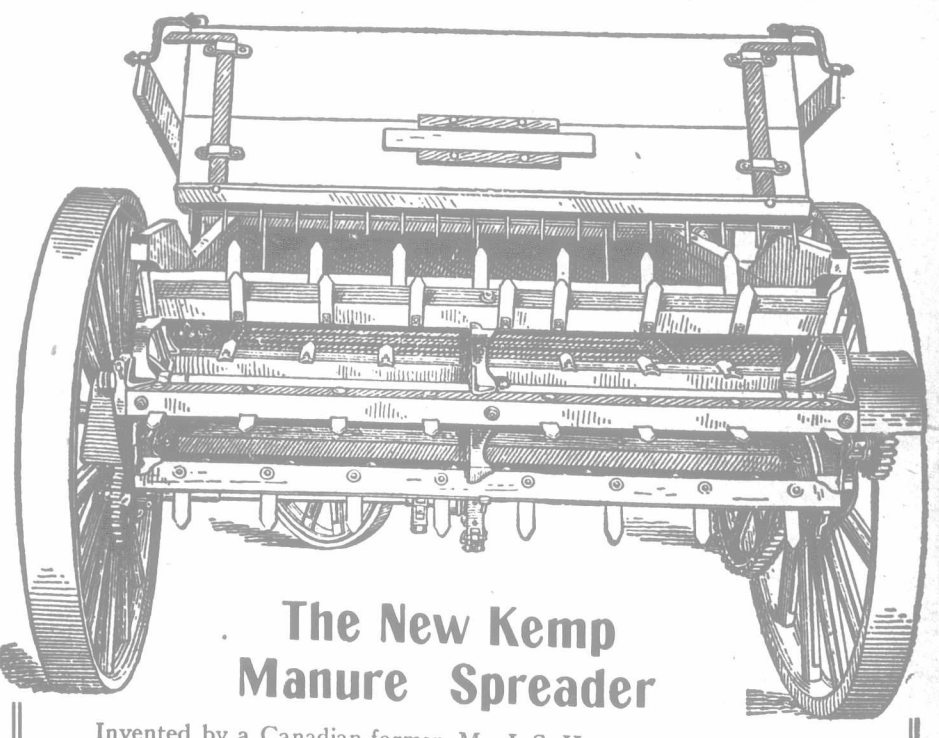
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It was a sorrowful homecoming for Rebecca. The death of Mira, the absence of John, who had been her special comrade, the sadness of her mother, the isolation of the little house, and the pinching economies that went on within it, all conspired to depress a child who was so sensitive to beauty and harmony as Rebecca.

Hannah seemed to have grown into a woman during Rebecca's absence. There had always been a strange unchildlike air about Hannah, but in certain ways she now appeared older than aunt Jane—soberer, and more settled. She was pretty, though in a colorless fashion; pretty and capable.

Rebecca walked through all the old playgrounds and favorite haunts of her early childhood; all her familiar, her secret places; some of them known to John, some to herself alone. There was the spot where the Indian pipes grew; the particular bit of marshy ground where the fringed gentians used to be largest and bluest; the rock maple where she found the oriole's nest; the hedge where the field mice lived; the moss-covered stump where the white toadstools were wont to spring up as if by magic; the hole at the root of the old pine where an ancient and honorable toad made his home; these were the landmarks of her childhood, and she looked at them across an immeasurable distance. The dear little sunny brook, her chief companion after John, was sorry company at this season. There was no laughing water sparkling in the sunshine. In summer the merry stream had danced over white pebbles on its way to deep pools where it could be still and think. Now, like Mira, it was cold and quiet, wrapped in its shroud of snow; but Rebecca knelt by the brink, and putting her ear to the glaze of ice, fancied, where it used to be the deepest, she could hear a faint, tinkling sound. It was alright! Sunnybrook would sing again in the spring; perhaps Mira too would have her singing time somewhere—she wondered where and how. In the course of these lonely rambles she was ever thinking, thinking, of one subject. Hannah had never had a chance; never been freed from the daily care and work of the farm. She, Rebecca, had enjoyed all the privileges thus far. Life at the brick house had not been by any means a path of roses, but there had been comfort and the companionship of other children, as well as chances for study and reading. Riverboro had not been the world itself, but it had been a glimpse of it through a tiny peephole that was infinitely better than nothing. Rebecca shed more than one quiet tear before she could trust herself to offer up as a sacrifice that which she so much desired for herself. Then one morning as her visit neared its end she plunged into the subject boldly and said, "Hannah, after this term I'm going to stay at home and let you go away. Aunt Miranda had always wanted you, and it's only fair you should have your turn."

Hannah was darning stockings, and she threaded her needle and snipped off the yarn before she answered, "No, thank you, Becky. Mother couldn't do without me, and I hate going to school. I can read and write and cipher as well as anybody now, and that's enough for me. I'd rather die than teach school for a living. The winter'll go fast, for Will Melville is going to lend me his mother's sewing machine, and I'm going to make white petticoats out of the piece of muslin aunt Jane sent, and have 'em just solid with tucks. Then there's going to be a singing-school and a social circle in Temperance after New Year's, and I shall have a real good time now that I'm grown up. I'm not one to be lonesome, Becky," Hannah ended with a blush; "I love this place."

Rebecca saw that she was speaking the truth, but she did not understand the blush till a year or two later.

(To be continued.)

GOSSIP.

At an auction sale of Hampshire Belted hogs, at Nora, Nebraska, January 25th, ninety-three head sold for an average of \$55.26. The top price was \$180, for a show sow. Three others sold for an average of \$100. At a sale of Duroc Jerseys, at Hampton, Iowa, prices ranged from \$30 to \$125.



Style 70

A Piano is no better than its hidden parts. That's why we so confidently ask you to compare the Sherlock-Manning 20th Century Piano with the best makes.

MARK you, we do not urge you to buy a Sherlock-Manning Piano—we simply ask you to compare the Sherlock-Manning with the world's best. We know that the Sherlock-Manning 20th Century Piano is

"Canada's Biggest Piano Value"

and we believe that your judgment or the judgment of any unbiassed master musician, will confirm our opinion.

But, before you decide, find out the essentials of a perfect piano—the features that make for lasting tonal beauty.

The piano you buy should have

- The famous Otto Higel Double Repeating Action.
- Pohlmann Wire, the best piano wire made.
- Weickert Felt Hammers, the Hammers that endure.
- A Full Iron Plate, and

—Billings Brass Action Flange, the latest improvement.

There are other essential features, but ask to be shown these—the most essential. You will find that only high-grade, first quality instruments possess these. Now Sherlock-Manning 20th Century Piano is the embodiment of quality. It possesses every feature that makes for piano excellence and the lasting life of the instrument. Yet—you can save money, a considerable amount of money, if you buy a Sherlock-Manning Piano. Ask us to show you where and how the saving comes in. Write for inside information anyhow.

Sherlock-Manning Piano & Organ Co.
LONDON (No Street Address necessary.) CANADA 22



COWAN'S PERFECTION COCOA

A MUSCLE-BUILDING FOOD

Growing youngsters work hard. They need food that is nourishing—food that satisfies the hunger and digests easily. Nothing is better for them than Cowan's Perfection Cocoa. Ground from the fresh Cocoa Beans, it has all the food value of pure Cocoa. It builds up the muscles and makes children healthy and strong. A cup of Cowan's made with half or one-third milk is a properly balanced food—one that the most delicate stomach can digest. And it is so delicious that it tempts the appetite when all other foods fail.

YOUR GROCER HAS IT

"Grandpa Let's buy them some COWAN'S"

THE COWAN COMPANY, LIMITED TORONTO, ONT.

The Best Built Roller

is the "Bissell," with Drums of heavy steel plate, hard in temper, riveted up close, having pressed steel heads.

With AXLES of 2 inch solid steel revolving on cold Rolled Roller Bearings.

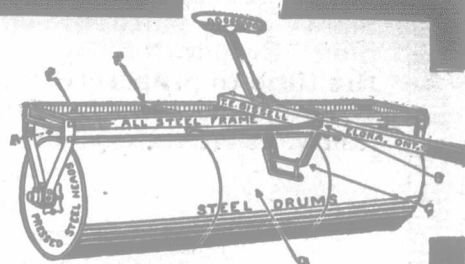
With the MALLEABLE CAGE in one piece, holding the Roller Bearings in line on the axle.

With DRAW BRACKET under the Pole, making the Draught down low.

With the FRAME all of steel and the improved steel plate bottom.

You may be told that other Rollers are like the Bissell—but there is only one original Bissell Roller and to save our customers disappointment, we put our name on every Roller we build. Look for the name "Bissell" and write our Dept. W for catalogue.

Several styles and a variety of widths to choose from, 6 ft. up to 12 ft. Grass Seeder Attachment also furnished if required.



T. E. BISSELL CO., LTD., ELORA, ONT.

Announcement of Winner in Farm Engine Contest

AFTER a careful examination of the more than 5,000 lists submitted, Mr. J. C. McDonald, of the Family Herald and Weekly Star, who acted as chairman of the judges' committee, announces that the farm engine has been awarded to Mr. F. W. Crealey of Strathney, Ont. His list was selected as containing the greatest number of practical uses for

Fairbanks-Morse Farm Engines

THE information gathered from the many lists submitted is of untold value. When 5,200 intelligent Canadian farmers get down to analyzing the number of uses to which Fairbanks-Morse engines can be adapted on the farm, many valuable ideas are bound to result.

The best and most practical suggestions have been compiled and are being published in booklet form. This manual is full of interesting, instructive and money-saving information for the farmer. Only a limited edition will be printed, and, judging from the number of requests already received, this will be quickly exhausted. The first 5,200 off the press will be reserved and mailed to contestants; the remainder will be sent to those whose requests are received first.

If you were not a contestant, send in your name at once. Just write: "Please mail me a free copy of '49 Uses for a Farm Engine'". State whether you own an engine or not. Sign your name and address and send to

Farm Booklet Editor

The Canadian Fairbanks-Morse Co., Limited
MONTREAL QUEBEC



Maple Syrup Makers!

ENTER THIS CONTEST
\$500

IN GOLD CASH PRIZES CUT OUT THIS COUPON

Why Not Be a WINNER in This Contest?

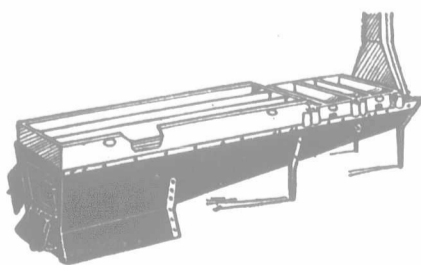
We are giving away \$500 in gold, cash prizes, to users of the GRIMM "CHAMPION" EVAPORATOR. Full particulars will be mailed on receipt of above coupon.

The competition will take place during the last two weeks of April, and samples of syrup and sugar received will be placed on exhibit in the show windows of the "Montreal Star." Every purchaser and user of the Grimm "Champion" Evaporator may take part in this contest. Now is the time to properly equip yourself to make high-grade syrup and sugar—high priced, and therefore profitable. Do it now, before the sap runs. State number of trees you

will tap, and we will give you prices on a suitably-sized outfit. Address all, enquiries:

PRIZE CONTEST
GRIMM MFG. CO., Limited
56-58 Wellington Street
MONTREAL

(Don't forget coupon)



Gossip.

The Archibald Cereal Company, of Woodstock, Ont., advertise for sale dairy cattle feeds, comprising 50-per-cent. corn, balance oats and barley. This should prove a very useful mixture.

A. Watson & Sons, R. No. 1, St. Thomas, Ont., in an advertisement, state they want as herd-header a Holstein bull with good backing. They also offer for sale several two-year-old heifers, bred to freshen in September.

Government standard seeds, including alfalfa, red and alsike clover, timothy, O. A. C. barley, Silver Mine, Siberian, and Banner oats, are advertised for sale at reasonable prices, by the Caledonia Milling Company, Caledonia. If interested, see advertisement.

SHORTHORN OFFERING AT GUELPH.

The prospective bull-buyer will find much of interest in the bulls listed by consigners to the annual sale of Short-horns to be held in the Winter Fair Building at Guelph, on March 5th. It is said the most uniform lot of well-bred bulls that have ever been contributed to this sale are listed this year. The offering is mainly of desirable Scotch breeding, and several are from heavy-milking dams. Many are show propositions of no mean order, and several are in show form now. No matter what your wants, it will pay you to get the catalogue of about forty bulls and investigate this offering. The Ontario Department of Agriculture will refund the freight charges on all single shipments to points in Ontario. Write for catalogue, or any information, to J. M. Duff, Secretary, Fat-Stock Club, Guelph, Ont.

HILLIKER'S AYRSHIRE SALE.

In the clearing auction sale of the Ayrshire herd of E. D. Hilliker, Burgessville, Oxford County, Ont., to be held at his farm on Tuesday, February 18th, as advertised, are nineteen cows and heifers, and three bulls, including the stock bull, Jimmie of Menie 35057, whose dam, Brownie's Best of Menie, was a large heifer, with good conformation, well-shaped udder, and large teats, and as a two-year-old had given 40 lbs. milk per day, testing a little over five-per-cent. butter-fat. Jimmie is a bull of refined quality and style, won second at Toronto last fall, and first at five other fairs. In the offering is a young bull, Pride of Sunnybrook, whose breeding cannot be beaten, his sire, Ivanhoe of Tanglewild, being from Primrose of Tanglewild, the champion cow of the breed last year for production, with a record of 16,195 lbs. milk, and 625 lbs. butter-fat. The dam of this bull, Pride of Hume Farm, was once champion female at Toronto. He has a very striking appearance, and was intended for the next herd bull. Included is Scotland Princess, a prizewinner wherever shown, nearly always getting first place. As a five-year-old, she gave 1,611 lbs. milk in one month, testing 4.2 per cent., and a little better than 13,000 in the year. Betsy Brown 30888, won third at Toronto last year, and gave in one month 1,320 lbs. milk, and from July 1st to now, over 8,000 lbs., and is still giving 30 lbs. per day. She has a heifer calf, the dam of whose sire won the dairy test of the breed at Ottawa in 1910. Another offering is the five-year-old cow Star's Doreen, by a son of Sarah 2nd, he being a half-brother to the champion cow, Jean Armour, with the great record of 20,000 lbs. This cow has recently dropped a heifer calf, by Jimmie of Menie. Star's Doreen is very much the type of Jean Armour. Two heifers, two-year-olds, by a son of Jean Armour, are in the offering. For fuller information, write for the catalogue, mentioning "The Farmer's Advocate."

THIS WASHER MUST PAY FOR ITSELF.

A MAN tried to sell me a horse once. He said it was a fine horse and had nothing the matter with it. I wanted a fine horse, but, I didn't know anything about horses much. And I didn't know the man very well either.

So I told him I wanted to try the horse for a month. He said "All right," but pay me first, and I'll give you back your money if the horse isn't all right."

Well, I didn't like that. I was afraid the horse was at "all right" and that I might have to whistle for my money if I once parted with it. So I didn't buy the horse, although I wanted it badly. Now, this set me thinking.

You see I make Washing Machines—the "1900 Gravity" Washer.

And I said to myself, lots of people may think about my Washing Machine as I thought about the horse, and about the man who owned it.

But I'd never know, because they wouldn't write and tell me. You see I sell my Washing Machines that way. So, thought I, it is only fair enough to let people try my Washing Machines for a month, before they pay for them, just as I wanted to try the horse.

Now, I know what our "1900 Gravity" Washer will do. I know it will wash the clothes, without wearing or tearing them, in less than half the time they can be washed by hand or by any other machine.

I know it will wash a tub full of very dirty clothes in Six Minutes. I know no other machine ever invented can do that, without wearing the clothes. Our "1900 Gravity" Washer does the work so easy that a child can run it almost as well as a strong woman, and it don't wear the clothes, fray the edges, nor break buttons, the way all other machines do.

It just drives soapy water clear through the fibres of the clothes like a force pump might.

So, said I to myself, I will do with my "1900 Gravity" Washer what I wanted the man to do with the horse. Only I won't wait for people to ask me. I'll offer first, and I'll make good the offer every time.

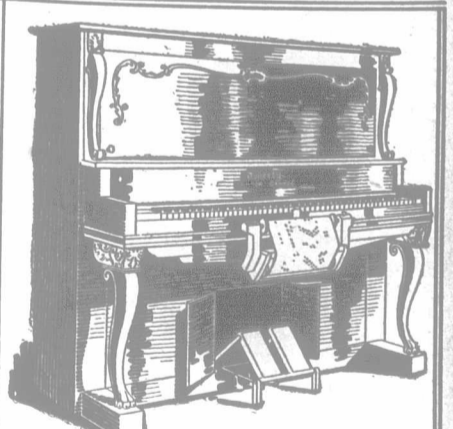
Let me send you a "1900 Gravity" Washer on a month's free trial. I'll pay the freight out of my own pocket, and if you don't want the machine after you've used it a month, I'll take it back and pay the freight, too. Surely that is fair enough, isn't it?

Doesn't it prove that the "1900 Gravity" Washer must be all that I say it is?

And you can pay me out of what it saves for you. It will save its whole cost in a few months in wear and tear on the clothes alone. And then it will save 50 to 75 cents a week over that in washwoman's wages. If you keep the machine after the month's trial, I'll let you pay for it out of what it saves you. If it saves you 60 cents a week, send me 60 cents a week 'till paid for. I'll take that cheerfully, and I'll wait for my money until the machine itself earns the balance.

Drop me a line to-day, and let me send you a book about the "1900 Gravity" Washer, that washes clothes in six minutes.

Address me personally:
A. V. MORRIS, Manager 1900 Washer Co., 357 Yonge St., Toronto, Can.



We can make any piano a perfect

88-note Player Piano

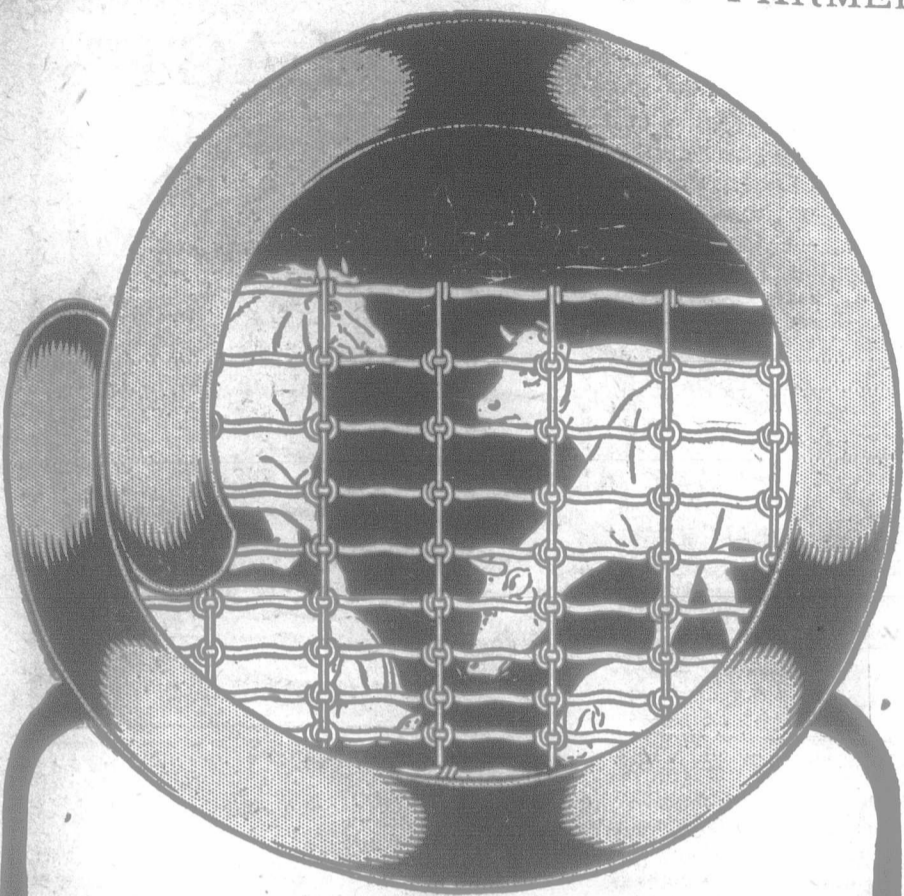
Upright Players
\$225

Grand Players
\$300

Write for illustrated booklet.

W. DOHERTY PIANO & ORGAN CO., LIMITED
Clinton, Ontario

PLEASE MENTION THE ADVOCATE.



Twice the Price Couldn't Buy a Better Fence Than Peerless Perfection

Now that's not mere talk—it's true. There is not a better fence made. You can pay higher prices—you can give your hard-earned cash for frills and fancies in fence design—but when it comes to real fence service—durability—Peerless Fence will outlast the best of them.

Now that's pretty strong talk, but when a fence will withstand the weight of two 1400-pound horses running headlong against it—when it will remain under water for four years without rusting—when it will hold its shape perfectly year after year for eight years—then we believe we are justified in describing that fence in the strongest way possible. Peerless fence has stood these tests. We don't ask you to take our word for it—

HERE'S THE PROOF—Direct from the Pens of Users

Dear Sir:—I am writing a testimonial as to the strength of your PEERLESS Junior Chicken fencing. Mine is four feet high. It turned two horses, each weighing 1400 pounds. They ran full tilt into the fencing about 2 rods from each other at the same time. The result was that they turned a somersault over the fence, alighting on their heads and necks, scratching them up some, but the fence remained intact.

Yours truly,
Surrey Centre, B. C. **JOE BOOTHROYD.**

Gentlemen:—PEERLESS fencing is the best galvanized fence, and when put up properly is the best fence on the market today. I have some PEERLESS fence, put up some four or five years ago, which is as bright as ever, and tight, and standing O.K.

Yours truly,
Pitt's Ferry, Ont. **HOWARD BRASH.**

There are some pretty strong statements in those letters, but they're true—every one of them. They come from people who know—folks who have given PEERLESS fencing the supreme test of time.

Why Peerless Fence Gives Such Good Service

We build it twice as good and strong as is necessary under ordinary circumstances. We build it of heavy open hearth steel wire with all the impurities burned out and all the strength and toughness left in. Heavily galvanized. Every intersection is locked together with a Peerless clamp. Top and bottom wires of Peerless Poultry Fencing are extra heavy—extra strong. Consequently fewer posts are required. PEERLESS fencing can't sag—can't rust—can't get out of shape—can't help giving absolute satisfaction. Catalog giving details on request. Describes our farm, poultry and ornamental fencing. Also Peerless farm gates.

Agencies almost everywhere. Agents wanted in all unassigned territory.

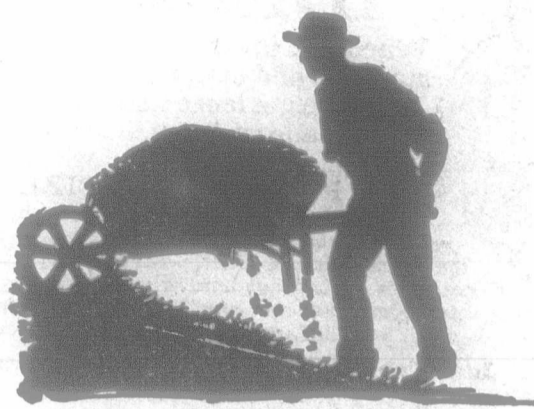
The Banwell-Hoxie Wire Fence Co., Ltd.
WINNIPEG, MAN. HAMILTON, ONT.

Gentlemen:—I have handled your fence for four years and find it a good, strong and durable fence, and find that the galvanizing is first-class. In referring to this I have a fence that I put on four years ago across a gulley and the water is as high as the second wire and it is not rusted nor broken yet. I have a team of heavy horses that ran into the fence last summer and did not break or damage it in the least, and I am glad to say that in the four years I have handled your wire I have had no complaints about it.

Yours truly,
Bowesville, Ont. **DAVID CUMMINGS.**

Gentlemen:—My father has some of your fence on his farm that has been up about eight years and is not rusted nor gone down. I know it is good.

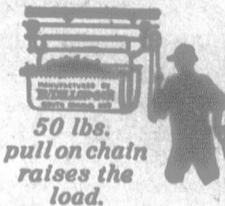
Respectfully yours,
Costworth, Ont. **GEO. E. LOTT.**



Some farmers are like Gladstone. You will remember he got his exercise by chopping down trees.

Some farmers—a good many of them—are getting theirs like the man in the picture above.

Trundling one wheelbarrow-load after another for half a day from stable to yard is exercise all right. And what a "plug" it is to get a well-filled wheelbarrow up the plank gangway on to the manure heap—especially in winter.



But have you time for this exercise?

Then why do it?

You wouldn't think of sowing or reaping in the old-fashioned way. Then don't make cleaning out stables the exception.

DILLON'S LITTER CARRIER lightens the labors of farmer's boy or hired man. It enables him to finish the stables in a fraction of the time before required.

A trim, well-kept barnyard, too, is the result of using a DILLON LITTER CARRIER. The bucket can be run out over the yard and dumped where desired.

A boy can work it. It can be fitted up without difficulty. The cost is the minimum for a first-class equipment. We have no Agents—you deal directly with the factory.

DILLON'S Litter Carrier

Figure it out for yourself. Get our free book.

Dillon's sell direct to the Farmer. There are no Agents and no Agents' profits. The price is the same to all, and lower than you would expect for such substantial and well-built equipment. DILLON'S BOOK ON CLEAN STABLES gives you an exact idea of what you can accomplish for a small outlay. Write for a free copy.

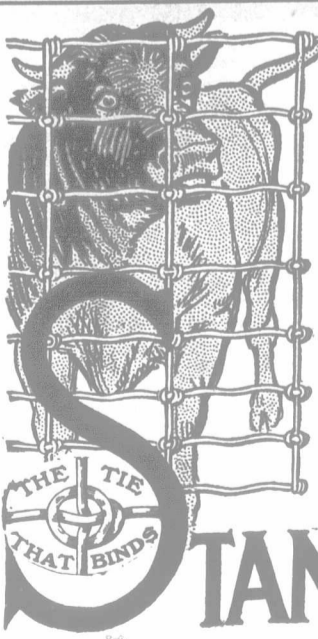
R. DILLON & SON
OSHAWA, ONT.



GOSSIP.

HASSARD'S HORSE SALE.

The auction sale of imported Clydesdale and Percheron stallions and fillies, held at the stables of P. Maher, Toronto, on Wednesday, February 5th, consigned by T. H. Hassard, of Markham, Ont., was in every respect a success. The attendance was large, and representative of every Province in the Dominion, and the quality of the animals offered was up to a high standard. The bidding was brisk, and a keen interest was manifested until the last drop of the hammer. Seventeen Clydesdale fillies, imported, including two foals imported in dam, sold for a total of \$9,470, an average of \$557 each, the highest price being \$1,010, for the yearling daughter of the famous Baron of Buchlyvie, Neil of Aikton, which went to the bid of the veteran Clydesdale-breeder, Sandy Doherty, of Ellesmere, Ont. The lowest price was \$205, for the filly foal, May Bud. Two



Don't Buy Fence Until

you have seen our catalogue. It puts the fence situation fairly and squarely before you.

It also tells you how to save time and money when building fence. How to measure up just the amount you need and how to order to your best advantage.

It tells you why, AND PROVES WHY, it will pay you to buy Standard Fence Posts and Gates in preference to all others. Write for it now. Address

Standard Tube & Fence Co. Limited
Dept. A WOODSTOCK, ONT.

Live agents wanted for Standard Fence, Posts and Gates. Write for special terms to-day.

STANDARD FENCE

imported Clydesdale stallions sold for an average of \$525, and one Canadian-bred Clyde stallion sold for \$495. Six imported Percheron fillies sold for a total of \$4,665, an average of \$777.50, the highest price being \$980, and the lowest \$610. Two imported Percheron stallions sold for \$1,000, and \$825, an average of \$912.50. Several of those purchased went to Western buyers, but the majority stay in Ontario.

John Cousins & Sons, Harriston, Ont., well-known breeders of Oxford Down sheep, write: "We have had good trade all season, both in bunch and singles, thanks to 'The Farmer's Advocate.' Following are some of sales: To Peter Arkell & Sons, Teeswater, nine rams; to J. S. McEwing, Wroxeter, one ram and one ewe; one ram each to W. J. Pomeroy, Belmore; J. Campbell, Palmerston; Jos. Black, Domville; Harry Johnson, Dundalk, and Wesley Dilwork, Melgund. Flock doing well, and lambs coming strong."

"IDEAL" FENCE---"MADE-TO-LAST"



When you invest good money in a wire fence you want that fence to LAST—to stay taut and staunch year in, year out, without needing repairs every spring. And you get fence that lasts when you choose "IDEAL" Farm Fence—it's made with you in mind—made to be THE fence for the man who invests his money wisely. Every inch of every "IDEAL" Fence is FULL SIZE STANDARD Number Nine

Gauge hard drawn steel wire—tough, highly tempered, springy, heavy wire of the best quality possible. Some fence-makers use 9 gauge for the horizontals and softer, weaker wire for the stays—but not "IDEAL" Fence. It's ALL heavy hard wire—that's why "IDEAL" is the fence that outweighs all others; and THAT'S why you get more *use* and more *wear* for your dollars when you buy this perfected farm fence.

Just Trust "Ideal" Woven Wire Fence
The galvanizing stays with it; the lock won't loosen under any strain a fence ever conceivably will have to stand; and the strength, the tautness, the springiness, the SERVICE is THERE—there every time in every foot of "IDEAL" Fence. Look into the matter carefully and you'll agree that here's the fence that WILL last.

Glad to send you details of all the many "IDEAL" styles—there's one for every fence purpose. Drop a card for catalog 121



The McGregor Banwell Fence Co.,
Walkerville, Ontario Ltd.

A Fertile Farm A Full Harvest A Full Profit



All these are possible by the liberal use of good fertilizers, the kind in available forms that will support the crop all through the growing season. Good seed and constant cultivation are necessary,

and good weather means much, but without fertility no farmer can make his acres do their best. With a big demand and a good price for every farm product, why not get all there is in it?

The chemists we employ give their greatest attention to availability. They want the fertilizers they make to roll out the bushels at harvest time, and they do.

We have a number of factories, all located at convenient points, and wherever you live, we can reach you with the right fertilizer, the right service, and the right price. Write today for copy of "Plant Food," a practical hand book on fertility. No advertising in it; sent without cost, while this edition lasts.

Agents wanted in unoccupied territory. Liberal terms and goods that sell. It pays to sell our fertilizers as well as to use them. Ask for agency proposition

The American Agricultural Chemical Co.

Makers of brands with fifty years of quality and results behind them.

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P. O. Drawer 814-E, Detroit, Mich.



125-Egg Incubator and Brooder Both For \$13.75

If ordered together we send both machines for only \$13.75 and we pay all freight and duty charges to any R. R. station in Canada. We have branch warehouses in Winnipeg, Man. and Toronto, Ont. Orders shipped from nearest warehouse to your R. R. station. Hot water, double walls, dead-air space between, double glass doors, copper tanks and boilers, self-regulating. Nursery under egg tray. Especially adapted to Canadian climate. Incubator and Brooder shipped complete with thermometers, lamps, egg testers—ready to use when you get them. Five year guarantee—30 days trial. Incubators finished in natural colors showing the high grade California Redwood lumber used—not painted to cover inferior material. If you will compare our machines with others, we feel sure of your order. Don't buy until you do this—you'll save money—it pays to investigate before you buy. Remember our price of \$13.75 is for both Incubator and Brooder and covers freight and duty charges. Send for FREE catalog today, or send in your order and save time. Write us today. Don't delay. **WISCONSIN INCUBATOR CO., Box 212, Racine, Wis., U. S. A.**

GOSSIP.

John W. Manarey, Duntroon, Ont., writes: In your issue of January 30th, there is an error in the report of the dispersion sale of P. M. Bredt & Sons, of Regina, Sask., on December 18th and 19th, in which it is said the Clydesdale mare, Dunrobin Pearlina, by Argus, went at \$1,060, which should read, Dunrobin Pearlina, by Celtic Laird. I have a letter from P. M. Bredt & Sons, in which they say she was sired by Celtic Laird, and as I own Celtic Laird, would like to have this credited to him.

SALE DATES CLAIMED.

- Feb. 18th.—Andrew Kersell & Sons, St. George, Ont.; Shorthorns.
- Feb. 18th.—E. D. Hilliker, Burgessville, Ont.; Ayrshires.
- Feb. 18th.—John Semple, Milverton, Ont.; Clydesdales.
- Feb. 25th.—Monro & Lawless, Thorold, Ont.; Holsteins.
- Feb. 25th and 26th.—Union Stock-yards Co., Ltd., Toronto; Clydesdales and Percherons.
- March 5th.—Annual Contribution Sale of pure-bred cattle, at Guelph, Ont.
- March 6th.—James Cowan, Seaforth, Ont.; Shorthorns.
- March 7th.—Executors, Thos. Weir, Scarborough, Ont.; Jerseys and Oxford Downs.
- March 11th.—A. H. Teeple, Currie's Crossing, Ont.; Holsteins. Sale at Woodstock.
- March 12th.—J. McKenzie, Willowdale, Ont.; Holsteins and Tamworths.

SHORTHORNS OF QUALITY AT AUCTION.

James Cowan, of Seaforth, Ont., for many years one of the leading breeders of Scotch Shorthorns in Western Ontario, has sold his farm and is going West, and on Thursday, March 6th, at the farm, "Fairview," one mile from the G. T. R. station, at Seaforth, will hold a dispersion sale of his entire herd, numbering thirty-three head of imported cows, their daughters and granddaughters, and the stock bull, Royalist, a massive 2,450-lb. son of the great sire, Blood Royal (imp.), bred by Wm. Duthie, dam also imported. A Marr Clara, he is a roan, five years old, of immense thickness of flesh, evenly distributed, level in his lines, and possessing great character. Properly fitted, no bull could afford to give him many points and win over him. He is safe, active, and sure. An illustration of him will be seen in the reading columns of this issue. The entire lot is essentially high class. Not many herds in this Province can show so much quality or uniformity. They are all in nice condition, and all are right in every particular, in fact, Mr. Cowan has never had a non-breeder in all the years he has been breeding. This of itself is a remarkable testimony of the health of the herd, and should carry big weight with anyone wanting breeding Shorthorns, while with this the general high-class character of the herd will not be a disappointment to visitors to the sale.

This handy farm wagon built low (which saves time and labor loading and unloading) and will carry the heaviest load anywhere a horse can travel. And because it never needs repairing, it's the most economical wagon on the market.

T-A Handy Farm Wagons & Wide-Tire Steel Wheels

Equip your old wagons with T-A Wide-Tire Steel Wheels, and they'll be just as good as new. And besides they'll carry 25 to 50 per cent. heavier loads.

For catalogue and descriptive literature write to:

Tudhope-Anderson Co., Limited

ORILLIA, ONT.



A FARMER'S GARDEN

It's without real serious meaning to many thousand farmers because they think it is too hard work or it is not convenient to work a horse. So many farmers fail to understand what truly wonderful possibilities there are in modern hand tools

IRON-AGE Wheel Hoes and Drills

(Now made in Canada) do all of the sowing, hoeing, cultivating, weeding, furrowing, ridging, etc., in any garden with better results, far less work and some real pleasure for the operator. 38 or more combinations at \$3.00 to \$15.00. Ask your dealer about them and write us for new booklet, "Gardening with Modern Tools" also copy of our paper "Iron Age Farm and Garden News"—both are free.

The Babman-Wilkinson Co., Limited Toronto, Ontario.

Send for this Book of Musical Instruments. Five hundred pages, illustrating and describing every kind of musical instrument, with prices. Costs 35c. to mail. Ask for catalogue H and send 15c. to help cover postage. **The R. S. WILLIAMS & Sons Co. Limited 143 YONGE STREET Toronto**

COLD IN HEAD CATARRH INSTANTLY RELIEVED BY THE OLD DR. MARSHALL'S CATARRH SNUFF 25¢ AT ALL DRUG STORES OR SENT FREE PAID BY C. H. KEITH, CLEVELAND, OHIO

Seed Corn, Barley, Oats for Sale—High-grade seed of Improved Leamington Corn, Newmarket Oats of pedigreed stock, and O. A. C. 21 Barley. For samples and prices write: **W. A. BARNET, Mgr. Gov. Exp. Farm, Harrow, Essex Co.**

Grade Holsteins—To reduce stock will sell a few young high-grade cows and heifers of good milking strain; in calf to Prince Posch Wayne 2nd 10828. **CHAS. D. BROWN, Haysville P.O., Ont.**

Important Holstein Sale

100 HEAD OF

High-class Holsteins

Property of MONRO & LAWLESS, of Thorold, Welland Co., Ontario, will be sold by auction at their farm on

Tuesday, February 25th

Fifty-five head of milking age, mostly fresh or springing, five choicely-bred bulls of various ages, ten yearling heifers and five choice grades in milk. No faulty udders. Tubercular tested. Good cattle and a square deal. Many of these cattle have R. of M. and R. of P. records. Some have both. We believe no such large lot of such uniform excellence was ever before offered to the public of Canada.

Thorold is easily reached by Grand Trunk, and by trolley every hour from St. Catharines, Merriton, Niagara Falls, Welland, Welland Junction and Port Colborne, which gives good connections with all C. P. R., M. C. R., T. H. & B., Wabash, Pere Marquette, Buffalo & Goderich and St. Thomas points.

Auctioneers { B. V. KELLY, Syracuse, N. Y.
R. E. HAEGER, Algonquin, Ill.
L. V. GARNER, Welland, Ont.

MONRO & LAWLESS, Proprietors, Thorold, Ont.

WRITE FOR CATALOGUE

E. D. HILLIKER'S

DISPERSION SALE

OF

Sunnybrook Ayrshires, Leicester Sheep, Horses, Implements, Etc.

TO BE HELD AT

Burgessville, Oxford Co., Ont., Tuesday, Feb. 18, 1913

Will sell by Public Auction the entire herd of 19 females and 3 males, including the herd bull, Jimmie of Menie, 2nd in his class at Toronto last fall. The cows are great producers and those not fresh at time of sale have been bred to freshen for the fairs next summer. A number of the females are closely connected with Jean Armour whose record is over 20,000 lbs. milk, and a number of young heifers are grand-daughters of "Scottie," the Record of Performance bull. Every head will be positively sold. Sale of stock at 1 O'CLOCK.

BIDS MAY BE SENT TO

JOHN McKEE, Clerk or A. SIPLE, Auctioneer
NORWICH, ONTARIO WOODSTOCK, ONTARIO

Carriages will meet morning trains. Catalogues on application.

Important Auction Sale of High-class

Reg. Shorthorns

Property of ANDREW KERSELL & SONS, St. George, Ont. Sale to be held on

Tuesday, February 18th, 1913, commencing at 1 o'clock sharp

The herd comprises 21 head registered Shorthorns: Seven cows, three with calf at foot, others supposed to be in calf, due about time of sale; three heifers supposed to be in calf; three heifers from 10 months to 2 years old; six bulls, ages from 6 months to 2 years old, including herd bull, Belvoir Beau - 83539 -.

TERMS.—Eight months' credit on furnishing approved joint notes, or 6% per annum off for cash.

WELBY ALMAS Auctioneer.

ANDREW KERSELL & SONS, Proprietors

Conveyances will meet morning trains at St. George and Branchton Stations. Write for catalogue.

FREE STYLE BOOK FOR 1913 OF

"Quality Line"

VEHICLES AND HARNESS

NINETEENTH YEAR OF SELLING DIRECT TO THE USER.

Our Catalogue will help you to choose just the Vehicle or Harness you require, and SAVE YOU MONEY. It describes and pictures many styles, gives prices, FREIGHT PREPAID, and fully explains our method of Selling Direct and saving you the Middlemen's Profit. Remember, we pay the freight in Ontario and Eastern Canada. The Catalogue is Free, for the asking. Send for it To-day.

INTERNATIONAL CARRIAGE COMPANY
Dept. "A," Brighton, Ontario.



GOSSIP.

IMPORTED CLYDESDALES AT AUCTION.

As advertised in this issue, the new importation of twenty-five Clydesdale mares and stallions, the first shipment of the year to Canada, the property of John Semple, of Milverton, Ont., a station on the Guelph-to-Goderich branch of the C. P. R., will be sold by auction at Milverton, on Tuesday, February 18th. This importation has been carefully selected, and for size, quality, and breeding, is up to a high standard, the animals being the get of first-class sires, as indicated in the advertisement. The keen demand for heavy draft horses, and the good prices available at present and in prospect, make this offering a favorable opportunity to secure, at the buyer's own price, excellent breeding stock, on reasonable terms. See the announcement on another page, and note the date, February 18th, the sale to commence at 1.30 p. m.

SPLENDID SHOWING OF THE MUTUAL LIFE.

For many years the progress of The Mutual Life Assurance Company of Canada, while not spectacular, has been rapid. To glance at the Annual Reports for the last twenty years is to observe, year after year, an almost monotonous prosperity, happily unrelieved by a single calamity. The business of the Company in force, 31/12/12, was \$77,921,143.88. Within a very few years the hundred-million mark will undoubtedly have been passed. In 1900, the total amount of assets was quoted at over five millions. To-day, they amount to over twenty millions. All these funds are invested within the Dominion of Canada, and no speculative securities of any kind are carried. Not since its foundation has one dollar of the policyholders' funds been lost. In view of the fact that the splendid new offices of the Company were completed and furnished during the past year, it was naturally to be expected that the expense ratio might rise. To the surprise of the officers of the Company themselves, it was found that, on the contrary, it had actually fallen by almost one-half of one per cent. Referring to the mortality experienced last year, the ratio of actual to expected was exceedingly low. This year it is 54 per cent., which, while higher than that of 1911, is still extremely favorable.

CLYDESDALES OF CHARACTER.

Smith & Richardson, of Columbus, Ont., for many years among the most successful importers and breeders of Clydesdale horses in Ontario, both in the show-ring and in the stud, have just returned home from the last big show of the season, that of Ottawa, where they were successful in again winning the major part of the awards. The many high-class horses imported by this firm in the past, and the big share of confidence they enjoy from the horse-buying public, are matters of the horse history of this country; and this year, in the matter of popular Clydesdale-breeding, genuine draft character, faultless underpinning, and straight, true action, form the keynote characteristic of the big selection on hand for the season's trade. Among the stallions are such big, classy ones as the great horse, Majestic Baron, the brown seven-year-old son of Baron's Pride, that was fourth at Guelph and third at Ottawa; Lascar, a bay five-year-old son of Craigend Prince, was fifth at Ottawa; Viscount Kinaird, a brown three-year-old son of Viscount Seaton, was second at both Guelph and Ottawa; Cowan's Chief, a bay three-year-old, by Baron Ruby, was fourth at Ottawa; Corinthian, a bay two-year-old, by the champion, Memento, was first at Ottawa, and reserve champion. These, and several others not mentioned, make a selection as choice as their breeding. In fillies, there are four three-year-olds, twelve two-year-olds, and three yearlings, many of them Guelph and Ottawa winners. Intending purchasers will be consulting their own interests by visiting this noted stud.

WESTERN LAND FOR SALE

In areas to suit purchasers from 160 acres upwards, situated on or near railways in the

Best Wheat, Oat and Stock Growing Districts of SASKATCHEWAN AND ALBERTA

200,000 acres to choose from. PRICES LOW.

Special Inducements Given Actual Settlers

F. W. HODSON & CO.
Room 102, Temple Building
TORONTO, ONTARIO, CANADA
Western Office: North Battleford, Sask.

GRAND TRUNK RAILWAY SYSTEM

Are You Going West?

The Grand Trunk Pacific Railway is the shortest and quickest route between Winnipeg, Saskatoon, Edmonton.

Fast trains leave Winnipeg at:
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FOR—
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Smooth Roadbed.
Electric lighted sleeping cars. Superb dining car service.

Ask nearest Grand Trunk Agent for full information, literature, etc., or write A.E. Duff, D.P.A., G.T.R., Toronto, Ont.

FREE

Let us send you, free, a wonderful catalogue of Ingrain Carpets and Art Squares; illustrated with full color reproductions. Buy your carpets direct from the manufacturer and save 40 or 50 cents out of every dollar.

CARPETS

FROM FACTORY TO HOME
SEND THE COUPON NOW

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12 Gordon St. GUELPH, Ont.

SPRAYERS

For large or small orchards, market gardens, potato farms, grain, mustard, tobacco, home and garden work, poultry plants, whitewashing, cleaning, cold water dainting, etc. From Buckets, Knapsacks and Barrel Sprayers to Traction and 50, 100, 150 and 200 gallon Power Sprayers—complete or in parts to build up. Sprayers already in use—40 easy ideas.

IRON AGE \$4 to \$400 (Now made in Canada)

They have out-told pumps, no corrosion. Unit sprayers, so you can build bigger when necessary. Ask your dealer to show them and write for new booklet, "Spraying Vines, Trees and Bushes." We also make full line potato machines, garden tools, etc.

The Bateman-Wilkinson Co. Limited
414 Bymington Ave., Toronto, Ontario

Mention "The Farmer's Advocate."

Handy wagon built low (which saves time and labor loading and unloading) and will carry the heaviest travel. And driving, it's the market.

Wagons & Steel Wheels

Wide-Tire as good as good



GARDEN



Limited Toronto, Ontario.

Estimates atating equal Costs H

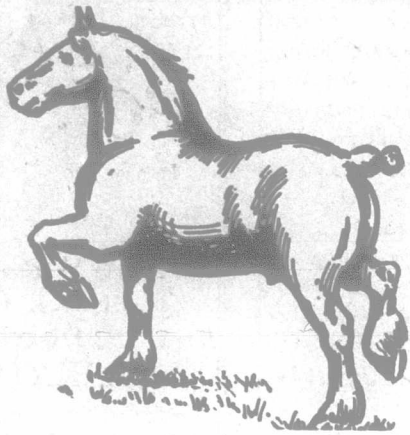
& Sons Co. Limited E STREET

AD THE OLD LLS OFF

Stock will young high-strain; in 28.

P.O., Ont.

ANNUAL COMBINATION AUCTION SALE



Reg'd Clydesdales and Percherons

IMPORTED AND CANADIAN-BRED

Tuesday and Wednesday, Feb. 25, 26, '13

SALE COMMENCES AT 11 a.m. EACH DAY.

Some extra well-bred prize-winning stock has been entered for these sales. Further particulars will be given next week.

Mr. E. J. Wigg, of Kingsville, will consign a carload of Percherons, stallions and mares. These horses are of extra good breeding and in excellent condition.

Catalogues will be out about February 15th, and will be sent to all applicants. Entry books now open.

WRITE FOR TERMS

Union Stock Yards of Toronto, Limited
HORSE DEPARTMENT

THE FARMER'S PLASTER

Every farmer should be familiar with

PULPSTONE

Wood-fibre Wall Plaster

IT is the strongest, warmest and most durable of all plastering materials. It is made from Gypsum Cement and wood fibre.

PULPSTONE is ready for use as soon as mixed with water—nothing to add—simply mix and apply—ONE COAT ONLY—and it is the only wall plaster you can use yourself.

It sets in about three hours, and is finished! You have a wall ten times as strong as lime mortar, and twice as warm.

PULPSTONE can be used outside by adding 10% Portland Cement. It is suitable for the exterior or interior of

Homes, Poultry Houses, Silos,
Barns, Outhouses, etc.

A postal will bring full information if addressed to

The Alabastine Co., Limited
PARIS, ONTARIO

Champions in Clydesdales and Percherons

At the late horse show in Guelph my entries in both Clydesdales and Percherons won by far the largest number of first prizes besides four championships. When you want a Clyde or Percheron stallion or filly come where you can get the best the breeds produce. Over 60 head to select from, champions and prize-winners.

T. H. Hassard

Markham P. O., G. T. R. Locust Hill, C.P.R. is only 3 miles.

BOOK REVIEW.

HEREDITY.

There are few phases or branches of physiological science that are as interesting and as complicated as the study of Heredity. This intricate subject has been made a life study by many of the world's greatest scientists, and while many have done a great work, none have equalled George Mendel, whose proven theories are now known as Mendelism the world over, and are recognized as the basis of research in this connection. W. Bateson, M. A., honorary fellow of St. John's College, and Director of the John Innes Horticultural Institution, a man who has studied and experimented for years to let in more light on the laws of Heredity and Inheritance, has written a 400-page illustrated book, "Mendel's Principles of Heredity," which gives a succinct account of discoveries in regard to Heredity, made by the application of Mendel's method of research. Heredity has an influence on all plant and animal life, and this influence is dealt with, giving the light which has been thrown on the subject by different investigators following the Mendelian outline. Plants, birds, and all forms of animal life are discussed in this connection. For a book on such a scientific subject, it is quite readable, and comparatively easy to understand. The book is published by the Cambridge University Press, is handsomely bound, and the type is clear and distinct. This is a book which should be in the library of every student of plant or animal life. It may be had through this office, at \$3.70, postpaid.

GOSSIP.

As indicated in the advertisement, the annual Provincial auction sale, under the auspices of the Ontario Department of Agriculture, and the management of the Guelph Fat-stock Club, will be held in the Winter Fair Building in Guelph, on Wednesday, March 5th, when some forty head of Shorthorns, principally bulls, will be offered.

TRADE TOPICS.

Readers intending to set strawberry plants in the coming spring, may do well to look up the advertisement in this issue, of Lakeview Fruit Farm, Grovesend, Elgin County, Ont., where twenty-five selected varieties are grown, and for sale.

QUESTIONS AND ANSWERS.

1st.—Questions asked by bona-fide subscribers to "The Farmer's Advocate" are answered in this department free.
2nd.—Questions should be clearly stated and plainly written, on one side of the paper only, and must be accompanied by the full name and address of the writer.
3rd.—In Veterinary questions the symptoms especially must be fully and clearly stated, otherwise satisfactory replies cannot be given.
4th.—When a reply by mail is required to urgent veterinary or legal enquiries, \$1.00 must be enclosed.

Veterinary.

ECZEMA — IRREGULAR STRANGLES.

1. Two of the cattle that I am fattening are not doing well. They are very itchy all the time, and their hair is falling out. One has all the hair off one side.

2. Three of my colts have had abscesses, one on the outside of hip, and another on inside of hip, and another above. Lumps form, which gradually become soft, burst, and discharge pus.
W. J. S. R.

Ans.—1. This is either eczema or lice. In either case, clip them (this may as well be done when the hair is falling out). Keep in comfortable quarters, and give a good washing every second day until cured, with a warm five-per-cent. solution of Creolin, applied with a scrubbing brush.

2. This is irregular strangles. Give each three drams of hyposulphite of soda three times daily, open up each abscess freely, and flush the cavity out well three times daily until healed with a five-per-cent. solution of carbolic acid. Keep well housed, except in very fine weather, do not allow them to get wet or cold, and feed liberally on soft, easily-digested, but nutritious food. If abscesses form on the intestinal organs, they will probably prove fatal.
V.

Try This Home-made Cough Remedy

Costs Little, but Does the Work
Quickly, or Money Refunded.

Mix two cups of granulated sugar with 1 cup of warm water, and stir for 2 minutes. Put 2½ ounces of Pinex (fifty cents' worth) in a 16-ounce bottle; then add the Sugar Syrup. Take a teaspoonful every one, two or three hours.

You will find that this simple remedy takes hold of a cough more quickly than anything else ever used. Usually ends a deep-seated cough inside of 24 hours. Splendid, too, for whooping cough, croup, chest pains, bronchitis, and other throat troubles. It stimulates the appetite and is slightly laxative, which helps end a cough.

This recipe makes more and better cough syrup than you could buy ready made for \$2.50. It keeps perfectly and tastes pleasantly.

Pinex is the most valuable concentrated compound of Norway white pine extract, and is rich in guaiacol and all the natural pine elements, which are so healing to the membranes. Other preparations will not work in this formula.

This plan of making cough syrup with Pinex and Sugar Syrup (or strained honey) has proven so popular throughout the United States and Canada that it is often imitated. But the old, successful formula has never been equalled.

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

**You Need This
Light 'Most
Every Night**

Indoors—outdoors—in the
stables and driving shed
—hundreds of times—in
dozens of places—you
need the

**"NINE LIVES"
ELECTRIC
FLASHLIGHT**

with its bright but
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Compact, handy, and
safe! Easily carried
in your pocket or under
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anything.

We'll send you a "Nine Lives"
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type for \$2.00. It's too conveni-
ent to be without—write to-day.

CANADIAN CARBON CO., Limited
92 West King St., Toronto

**CANADIAN
PACIFIC**

**SPECIAL CRUISE
AROUND THE WORLD**

Empresses of "Russia" and "Asia"
(New C. P. R. Pacific Steamships)

The Empress of Russia will leave Liverpool 1 April 1st, calling at Gibraltar, Villefranche and Port Said, proceeding via Suez, Colombo, Singapore, Hong Kong, Shanghai, Nagasaki, Kobe and Yokohama, arriving Vancouver June 7th, 1913.

Vessel remains 16 days at Hong Kong.
Empress of Asia will sail from Liverpool June 18th, particulars of trip will be announced later.

Most direct connection for April 1st sailing is via "Empress of Britain" from St. John, N. B., March 21st.

Rate for Entire Cruise, \$639.10

Exclusive of maintenance between arrival time in England and departure of "Empress of Russia," and stop over at Hong Kong. Particulars from Canadian Pacific agents, or write M. G. MURPHY, D.P.A., C.P.R., Toronto.

**MERCHANTS
PRODUCE CO.**

Butter Eggs Poultry Honey
Beans Apples Potatoes, etc.

Our constantly growing trade demands
large supplies of choice farm produce.
We need yours. Write for weekly
market letter.

57 Front St. E., Toronto
Established 1889

For Sale—Two very choice Imp. Clydesdale
Stallions, sire Baron's Pride; right
in every way and sure getters of A1 stock.
WM. MEHARY, Russell, Ont.

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HORSE OWNERS! USE

CAUSTIC BALSAM.



A safe, speedy and positive cure. The safest, best BLISTER ever used. Removes all bunions from horses. Impossible to produce scurf or bluish. Send for circulars. Special advice free.

THE LAWRENCE-WILLIAMS CO., Toronto, Canada

Don't Cut Out A SHOE BOIL, CAPPED HOOK or BURSTIS FOR

ABSORBINE

will remove them and leave no blemish. Cures any puff or swelling. Does not blister or remove the hair. Horses can be worked. 50¢ per bottle delivered. Book & E Free. ABSORBINE, JR. Liniment for manning. For Sores, Bruises, Old Sores, Swellings, Colic, Various Yelps, Varieties. Allays Pain. Price 50¢ and a bottle at druggists or delivered. Will tell more if you write. Manufactured only by W. F. YOUNG, P. D. F., 2837, Avenue 114th, Montreal, Can.

DUNHAMS' PERCHERONS

are today as for the past forty-seven years the -B-E-S-T- Fresh importation. Catalogue FREE.

DUNHAMS, Wayne, Du Page County, Ill.

Shires and Shorthorns

In Shire stallions and fillies, from the best studs in England, we are offering some rare animals at rare prices. Scotch Shorthorns of either sex or age, of highest breeding and quality. John Gardhouse & Son, Highfield, Ont. L. D. Phone.

For Sale—Angus Cattle. Some nice yearling bulls and good females, all ages. Use an Angus bull to cross and get the kind the butcher likes. J. W. BURT & SONS, Hillsburg P.O., R.R. No. 1, Ont.

Clydesdale Stallion For Sale, rising 3 years bay—Draffan's Fame (12362). Has been Government inspected. Sire Scotland's Fame (Imp.); dam Draffan Belle (Imp.). Terms to suit purchaser. Apply Morley Adams, Brantford, Ont., Box 65.

SKIPPED HILLS RAISE NO POTATOES

Every hill you miss in planting means money lost out of your pocket. No machine can plant perfectly unless there is a hand correction of misses and doublings. **IRON AGE Potato Planter** (Improved Robbins) (Now made in Canada) A seed piece in every space and one only. No pickets used—no injury to seed. Perfect placing of seed and uniform spacing. Can't you see that it must pay for itself? Write for booklet, 100 per cent potato planting. We make full line Potato Machines, Garden Tools, Sprayers, etc. The Babeman-Wilkinson Co., Limited 415 Myntington Ave. Toronto Ontario



Good Schools!

The best business colleges in Ontario are

Central Business College, STRATFORD, AND

Elliott Business College, TORONTO

All our instructors are experienced. The courses are up-to-date, and we do more for our graduates than do other similar schools. You may enter at any time. Write either college for a free catalogue.

Raw Furs

Our specialty is Canadian Raw Furs. Write for our free price list of Canadian Furs. We pay all mail and express charges. Remit same day as goods received. Hold shipments separate when requested. Prepay charges for returning furs if valuation is not satisfactory. We do not buy from dealers, but from trappers only.

HALLMAN FUR COMPANY 141 King St. East TORONTO, ONT. N. Hallman, Mgr. Four years with John Hallam

SEED GRAIN

Don't sow musty grain. It is devitalized. Good seed pays. Oats—Siberian heads list in Experimental Union. Banner—fine stock, from imported seed. Special—from Lord Rosebery's estate, Scotland. Dalmeny Special and Garton's Record. O. A. C. No. 21 Barley, Ontario's favorite. Siberian, 55¢ per bus., Banner, 55¢ per bus., Dalmeny, 75¢ per bus., Record, 75¢ per bus., O. A. C. 21 barley, \$1.00 per bus. Bags free; send for sample. Yorkshire Swine. W. T. DAVIDSON & SON, Meadowvale, Ont.

QUESTIONS AND ANSWERS. Miscellaneous.

WART.

I have a cow with a blood-wart on her neck. Is it considered dangerous, or is there a cure for it? W. B.

Ans.—Remove it by applications of butter of antimony, as directed through these columns on former occasions.

DUNNING BY POST-CARD-FERTILIZER FOR OATS.

Is it lawful to demand a debt by card put in the post-office? What is the law regarding same?

2. What would be the best fertilizer for oats? Mr. Emslie said he would not recommend over eighty pounds of potash per acre, and what else on light land? Would it insure a good catch of clover? SUBSCRIBER.

Ans.—1. It is possible that the demand may be so worded as to make it not unlawful, notwithstanding its being written on a post-card and mailed, but it depends upon the language used, and other circumstances, and is a risky proceeding.

2. A mixture that should give satisfactory results, under average conditions, is 80 pounds sulphate of ammonia, 250 pounds acid phosphate, and 80 pounds muriate or sulphate of potash.

CEMENT TANK FOR MAPLE SAP

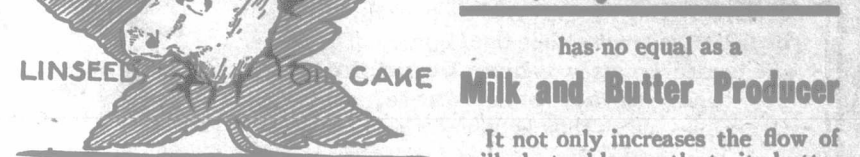
Editor "The Farmer's Advocate": In answer to C. H. H., who asks about a cement cistern in which to store maple sap, in "The Farmer's Advocate," issue of January 23rd, I may say that I am intending to build one for myself, as an ordinary water tank, well plastered inside with fine, rich cement plaster, and when plaster is set, wash with clear cement and water; and keep tank thoroughly wet inside and out for at least one week, as new cement-work will certainly absorb water until crystallized, then it would not absorb any sap to sour in its wall. Keep in the shade, and never keep maple sap long. To boil as fast as it comes is wise, and rinse the tank with cold water when emptied.

I have a cement arch for boiling maple sap. It has been in use four seasons, boiling the sap from over 300 trees. The walls are two feet above ground, and below frost line in the ground, which is not much in the woods. Walls are 8 inches thick, 10 feet long, and 4 feet apart, outside measurement. The pans are four in number, and set crosswise of the arch. The sap enters the front pan hot, through a coiled iron pipe that is easily set in the fire or removed when not needed, being cautious to keep sap flowing to avoid scorching. The pans are connected by syphons, the back pan being narrow, we can draw off syrup at almost any time. The last two feet of arch is used as a chimney foundation. In this way you require no irons on which to rest pans. One person can easily lift off the pans. You can boil with one pan, or all, according to amount of sap, by shoving the fire back in the arch. Have distance from second pan up to about four or five inches at back of arch. This will raise the blaze and heat to the pans. This is a rapid rig to boil down in, and the cement gives the best of satisfaction, built one of cement to eight of good gravel, with reinforcing of light iron. W. J. PEGG, York Co., Ont.

TRADE TOPICS.

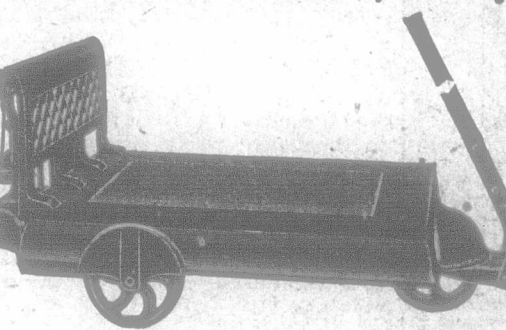
A 100-acre farm, near Thamesford post office and C. P. R. station, Township of East Nissouri, Oxford County, Ont., fourteen miles from London and Woodstock, by rail, is advertised for sale in this issue by W. I. Hogg. This is in one of the very best farming and most prosperous districts in Western Ontario. The farm is near a cheese factory, and other conveniences, has telephone service, rural mail-delivery, is in line for hydro-electric in the near future, is tile drained, and has good buildings. If interested, look up the advertisement and write for particulars, or call and see the property.

MAPLE LEAF CANADIAN BRAND- OUR OIL CAKE MEAL



has no equal as a Milk and Butter Producer. It not only increases the flow of milk, but adds greatly to its butter making properties, aids digestion in the cow, and therefore makes the rough feeds of greater productive value. It puts muscle on the beef animal in the right places, and makes prize-winners. Try it on your young cattle, spring calves, horses and sheep and **WATCH THE RESULT.** If your dealer cannot supply you write direct for samples and prices. **THE CANADA LINSEED OIL MILLS, Limited.** Mills at MONTREAL and TORONTO.

WAGON AND STOCK SCALE, a Money-saver to You, Mr. Farmer



So often you lose money because you are not quite sure of the weight of the article that is changing hands, and by just putting it on the scales your eyes are opened, and you are in a position to judge very accurately as to what this or that particular thing is worth. Write to-day for our illustrated catalogue, telling you about the Three-wheeled Wagon and Stock Scale, Capacity, 3,000 lbs. All material and workmanship first-class and guaranteed. Address: **The Aymer Pump & Scale Co., Limited** AYLMER, ONTARIO

COLUMBUS CLYDESDALES AT HOME

To our past customers and intending purchasers, we wish to say that we can show you something really worth while in Canadian-bred and imported Clydesdale stallions and mares. Our aim is to please you. **SMITH & RICHARDSON,** Columbus, Ontario. Phone connections. Stations: Oshawa G.T.R. and C.N.R., Brooklyn G.T.R., Myrtle C.P.R.

Clydesdales in Quantity and Quality

ORMSBY GRANGE STOCK FARM, Ormstown, P. Que. As I am feeding no steers this winter I have filled my stables with imported fillies, selected personally in Scotland; many in foal to such sires as Hiawatha, Sir Hugo, King's Champion, Sir Rudolph, etc. Fourteen have been sold, eighteen of the best are still on hand—the selections being made more on account of price than superiority. There are no culls in the lot. Send for pedigrees and particulars before buying elsewhere. Inspection invited. **D. McEACHRAN.**

CLYDESDALES OF CANADA'S STANDARD

They have arrived—my third importation for 1912, stallions and fillies. I have now the biggest selection in Canada, and a few toppers in stallions. High-class breeding and high-class quality and low prices. **G. A. BRODIE, Newmarket P.O.**

Clydesdales and Percherons

Stallions and fillies of either breed. Over forty head to select from. Draft horses in reality as well as in name. Highest types of the breeds. Come and see them. Terms and prices to suit. **T. D. ELLIOTT & SON, BOLTON, ONTARIO**

Percheron, Belgian and Shire Stallions—Imported and home-bred. Three to four years old, maturing 1,900 to 2,400 lbs. No finer lot in America. Prices and terms reasonable. Farms in city. **LEW W. COCHRAN, Office, 205 Ben Hur Bldg., Crawfordsville, Ind.**

IMPORTED CLYDESDALES.

A few choice young stallions always on hand and for sale. Frequent importations maintain a high standard. Prices and terms to suit. **BARBER BROS., Gatineau Pt., Que., near Ottawa.**

Stallions — CLYDESDALES — Fillies

I have a big importation of Clyde stallions and fillies just landed; a lot that cannot be duplicated to-day in Scotland and never was in Canada. Let me know your wants. **ROBT. BEITH, Bowmanville, Ont.**

CLYDESDALES --- A NEW IMPORTATION

We have lately landed a shipment of Clyde stallions and fillies, several Scotch winners among them. Their breeding is unsurpassed. Comparison with any others in the country will make you a buyer from us. Our prices are as low as the lowest. L. D. Phone. **GOODFELLOW BROS., MACVILLE P. O., ONT.; BOLTON STATION, C. P. R.**

CLYDESDALES OF SHOW CALIBRE

We have stallions and fillies of our 1912 importation that have won many first prizes and championships. This type, quality and breeding is unexcelled. Prices as low as any, and terms the best. **ROBT. NESS & SON, Howick, Que.**

Rosedale Stock Farm—Breeder and importer of Clydesdale and Shire horses, Shetland and Welsh ponies, Shorthorn cattle, Leicester sheep. Established over 40 years. Always on hand, a big selection of highest quality. Write your wants. **G.T.R. and C.P.R., Electric cars. J. M. GARDHOUSE, Weston, Ont.**

Imported Clydesdale Fillies of "Baron's Pride," "Hiawatha" and "Royal Favorite" strains; also children's ponies. Long-distance phone 704 ring 41. **ALEX. F. McNIVEN, St. Thomas, Ontario**

IMP. CLYDESDALE STALLIONS AND FILLIES

just landed. Size and quality and breeding unsurpassed. Come and see them. Prices away down. Terms to suit buyer. **W. B. ANNETT, ALVINSTON, ONT.** Farm situated five miles from Watford, Ont., G. T. R. station, and four miles from Alvinaron. G. T. R. and M. C. R.

OUR Stallion Policies, covering against loss by **Death through Accident or Disease**, are more liberal and afford more protection to owners than any issued by Competing Company. They contain no vexatious clauses, having been drafted to cover the **special conditions** met with in this Country. They cover the horse no matter **where he might be** and not merely in his own stable, as certain Companies do. This is very important during

STALLION INSURANCE

the Breeding Season as the horse might die while being on the road. Do not take any chances by insuring with others, **insure with us**; The insurance premium represents only a small proportion of the service fees earned. Better risk the **loss of the premium** than the **purchase price** of your beast if it dies without insurance. **Better have and not need than need and not have.**

All kinds of live stock insurance transacted.
THE GENERAL ANIMALS INSURANCE CO. OF CANADA, Head Office: 71a ST. JAMES STREET, MONTREAL, Que.

CURES LAME HORSES

While They Work Without Leaving a Scar or Loss of Hair.



The Only Spavin Remedy in the World Sold Under a \$1000 Bond.
 FOR SPAVIN, RINGBONE, THOROUGHPIN, CURB, CAPPED HOCK, SHOE BOIL, SPRUNG KNEE, LACERATED AND RUPTURED TENDONS, SWEENEY, ETC., it is unsurpassed, frequently imitated, but not equalled.
OUR FAITH is such that we can afford to **GUARANTEE MACK'S THOUSAND DOLLAR SPAVIN REMEDY** and furnish with every bottle a **\$1000 WARRANTY BOND**, which insures to you the return of your money if the results from its use are not entirely satisfactory, and if it does not overcome all forms of lameness, from whatever cause.

Your Remedy is a Wonder
 Milwaukee, Wis., Mar. 21, 1912.
 Dear Sir:—I wish to advise that I have entirely cured the Curb on my driver in less than three weeks with your Mack's Thousand Dollar Spavin Remedy. It is all you claim it to be, and is the best remedy I have ever used.
 Yours very truly,
 Wisconsin Lakes Ice & Carriage Co.
 Per J. G. Meyer, Supt.

FREE Veterinary Advice
 We have associated with us a Graduate Veterinarian to answer all questions regarding lameness in horses, free of charge. Mark a cross on picture of horse showing where lameness is located and cut out and mail same to us. You will receive instructions how to cure the trouble. If your druggist can't supply Mack's Thousand Dollar Spavin Remedy remit price direct to us and we will send at once, prepaid, \$5.00 per bottle—and worth it. Accept no substitute. Our valuable book, "Horse Sense," sent free to any address.



McKALLOR DRUG CO., Binghamton, N. Y.
LYMAN BROS. CO., LIMITED,
 Distributors to Drug Trade, Toronto, Ont.

Veterinary Drugs Pharmacy

Any kind of **VETERINARY DRUGS**
 If you need any, write at once, when we will quote very low and reasonable prices.
 Consultation by letter **FREE** of charge, with our diplomed veterinary doctor. For any diseases, write and consult him now.
NATIONAL STOCK FOOD COMPANY
 Ottawa, Ontario.

NOTICE TO HORSE IMPORTERS
GERALD POWELL,
 Commission Agent and Interpreter,
NOGENT LE ROTROU, FRANCE
 Will meet Importers at any port in France or Belgium, and assist them to buy Percherons, Belgians, French Coach horses. All information about shipping, banking, and pedigrees. Many years experience: best references. Correspondence solicited.

Notice to Importers
C. CHABOUDEZ & SON
 205 rue La Fayette, PARIS, FRANCE.
 If you want to buy Percheron Horses and Mares, I will save you time and money and all trouble with papers and shipment. Will meet importers at any landing port. I am acquainted with all breeders and farmers. Thirty years' experience. Best reference. Correspondence solicited.

DR. BELL'S Veterinary Medical Wonder. 10,000 \$1.00 bottles **FREE** to horsemen who will give The Wonder a fair trial. Guaranteed to cure Inflammation, Colic, Coughs, Colds, Distemper, Fevers, etc. Agents wanted. **DR. BELL, V.S., Kingston, Ont.**

QUESTIONS AND ANSWERS. Miscellaneous.

TOBACCO CULTURE.
 Where could I obtain full information regarding tobacco culture?
 A SUBSCRIBER.

Ans.—Write the Dominion Department of Agriculture, Ottawa, for bulletins on tobacco-growing. This department has done some experimental work in this connection.

VOTING.
 A Canadian who is a legal voter goes to the United States and is naturalized. Has he the legal right to vote in Canada when he returns?
 AN ADVOCATE READER.

Ans.—We don't think he has until he becomes again a Canadian citizen. He is a naturalized citizen of the United States.

BRICK AND CEMENT HOUSES.
 I am about to build a house, and would like you to answer a few questions. How are brick and cement-block houses to be compared as to cost and dampness?
 A. V. M.

Ans.—This depends largely on circumstances, the price of cement and brick locally, the supply of sand and gravel, etc., and the mode of construction. Either house, properly constructed, is dry enough for all practical purposes. If there is any difference, it would likely be in favor of the brick, which, under most conditions, would be the more costly of the two.

SILAGING CORN.
 1. Would cornstalks make satisfactory silage if cut into silage now?
 2. Also, what would be the effect on the green silage that was put in at corn-cutting time?
 T. A. P.

Ans.—Cornstalks cut into a good silo at this time would probably make fair silage if thoroughly well wet as they were put in. We should prefer to fill in a period of mild weather, but have had no personal experience with ensiling corn at this date. What has been the experience of readers on this point?
 2. Putting more cornstalks in your silo at this date will in no wise injure the silage which may be already there.

ROAD WANTED.
 I have lived here for the last thirty years and over, and the council has never given us a road yet. We have had to pay taxes every year from the first, at the rate of, at first, \$8 per year on one hundred acres, till the last seven or eight years it rose to as high as \$37 per year, and have always had to open gates and shut them—as many as seven and eight gates both ways—to get out to Barrie—or anywhere else. Now, I think that if my neighbor and I had our tax-money back from the council, we could build a good road out to the good gravel road going in to Angus or Barrie. As to the council, we have tried so often to get them to open up a road that we thought you could advise us what we could do.
 Ontario.
 Ans.—We do not know that we can advise anything beyond your trying to secure the election of councillors who would be favorable to your getting the desired relief. In the meantime, perhaps some useful pressure might be brought to bear upon the present council, in addition to the urging on the part of yourself and neighbors,—pressure from someone whom you could get to take an interest in the matter, and who might have influence with members of the council.

Important Sale of Imported CLYDESDALES

THE FIRST IMPORTATION OF THE YEAR
 Carefully selected—25 head in all—6 stallions, 2 to 7 years old; 19 mares and fillies, up to 1,600 to 1,700 lbs.; sired by such well-known horses as the Cawdor Cup Champion, Hiawatha Godolphin, Sir Dighton, Royal Favorite, Baron O'Dee, Dunure Castle, the H. & A. S. first-prize horse, Warlab; the big, good-breeding horse, Marmion's Heir, out of a Macgregor mare. Others by the powerful horses, Lothian Pride, Silver King, Lochnar, and the great breeding horse, Allandale.

Tuesday, February 18, 1913

At MILVERTON, a station on the C. P. R. Guelph to Goderich branch.

TERMS.—Cash or six months' time at 6 per cent. through joint notes or by furnishing bank references.
 SALE TO COMMENCE AT 1 O'CLOCK P.M.
W. D. WEIR & SON Auctioneers Milverton, Ont.
JOHN SEMPLE, Proprietor Milverton, Ont.

SAVE-THE-HORSE

THE TIME IS NOW

All the winter long, the troubled owner of a lame horse reads our advertisements. Then, day after day slips away, while he talks, laments, listens, takes advice and hesitating—**FAILS TO ACT**—till the Springtime is on him and his horse is not yet able to work. Meantime, the thrifty, prosperous, resolute man, reads, considers the evidence carefully—**Decides Promptly**—and his horse is working in, say, ten days to two weeks. That's exactly what happens every winter.

We Originated the treatment of horses by mail—Under Signed Contract to return Money if Remedy Fails—and every minute of every day for **seventeen years** our advice and treatments have been on the way wherever mails go and horses are. **Our charges are moderate.** Spring work is near; Write at once.

Our Latest **Save-The-Horse BOOK** is a Mind Settler—Tells How to Test for Spavin—What to Do for a Lame Horse—Covers 58 Forms of Lameness—Illustrated. But write describing your case and we will send our **BOOK**—Sample Contract and Advice—**ALL FREE** to Horse Owners and Managers—Only.
 Address—**TROY CHEMICAL CO.,** 148 Van Horn Street, Toronto, Ont.; also Binghamton, N. Y.
 Druggists everywhere sell Save-The-Horse with contract, or sent by us Express Paid.

Percheron Stallions and Mares

We have a large stock of imported stallions and mares to choose from. Our stallions are all Government inspected and approved, and are guaranteed foal getters. We have mares all ages, some nice matched pairs in a lot and a good many in foal. At the Toronto Exhibition and Guelph Fat Stock Shows our Percherons won more ribbons than any other firms in the business. Intending purchasers write for catalogue.

HODGKINSON & TISDALE - BEAVERTON, ONT.
 G. T. R. and C. N. O. Railways Long Dist. Bell 'Phone No. 18

Just Arrived—Clydesdale Stallions and Fillies.
 Bigger and better than ever before is our 1913 importation just arrived. Stallions with size, character, quality and breeding. Fillies of high-class breeding and quality for show or breeding purposes. Come and see them. Terms and prices right. **JOHN A. BOAG & SON** Queensville P.O. and Sta. on Toronto to Sutton Electric Line. L. D. 'Phone

Mount Victoria Clydes & Hackneys
 When in want of a high-class Clydesdale stallion or filly, or something that has won and can win again in Hackney stallions or fillies, visit our barns at Hudson Heights, Que. **T. B. MACAULAY, Proprietor.** E. WATSON, Manager, Hudson Heights, Que.

QUALITY AND SIZE IN CLYDESDALES
 For the best breed produces in the combination of size, character, quality, breeding and action, see my 1912 importation of Clyde Stallions and Fillies. Prices and terms unequalled.
JAMES TORRANCE, MARKHAM, Locust Hill, C. P. R. P. O. and Sta., G. T. R. L. D. 'Phone

BEST RESULTS ARE OBTAINED FROM ADVOCATE ADVERTISEMENTS.

IDEAL GREEN FEED SILOS

Now when you have the time why not settle the silo question.

The more you investigate the advantages of having succulent silage to feed to your cows all winter the sooner you will decide to erect a silo.

We want you to have our Ideal Green Feed Silo Book

It not only describes the best silo made but it also contains much valuable information for all cow owners.

If you are a cow owner a postal card request will bring you the book free of charge.

De Laval Dairy Supply Co., Ltd.
173 William Street, Montreal
128 James Street, Winnipeg

Fistula and Poll Evil

Any person, however inexperienced, can readily cure either disease with Fleming's

Fleming's Fistula and Poll Evil Cure

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

Write us for a free copy. Ninety-six pages, covering more than a hundred veterinary subjects. Durable bound, indexed and illustrated.

FLEMING BROS., Chemists,
75 Church Street, Toronto, Ont.

PRESIDENT SUSPENDER

NONE SO EASY

Aberdeen-Angus of Show Form and Quality. For this season my offering in young bulls and heifers are toppers, every one. Show-ring form and quality, and bred from show winners. T. B. BROAD-FOOT, Fergus, Ont. G. T. R. and C. P. R.

1854 Maple Lodge Stock Farm 1913

Am offering a very fine lot of young Shorthorn bulls just now. Excellent breeding and most from splendid milking dams. The kind that is needed.

House is one mile from Lucan Crossing, G. T. R.

A. W. SMITH, Maple Lodge P.O., Ont.

Clover Dell Shorthorns

Choice young stock of both sexes. Dual-purpose a specialty. Herd headed by (Imp.) Ivanhoe. L. A. WAKELY, BOLTON, ONT.

Shorthorns, Cotswolds, Berkshires

For sale: 10 bulls, from 7 to 10 months; also cows, heifers and heifer calves. Would sell a few young Cotswold ewes. No Berkshires to offer at present.

CHAS. E. BONNYCASTLE
P.O. and Station, Campbellford, Ontario

CEDARDALE SHORTHORNS—To make room for newcomers, I am now offering some rare value in Scotch-bred cows and heifers, beautifully bred and high-class in type; also 1 yearling bull.

Dr. T. S. Sproule, Markdale, Ont.

Shorthorn Bulls and Heifers—I have a choice lot of young bulls and heifers in all now to offer. Former sires, Joy of Morning (Imp.) = 32070 = and Benachie (Imp.) = 69954 = Present stock bull, Royal Bruce (Imp.) = 55038 = (89909) 273853.

GEO. D. FLETCHER, R. R. No. 2, Erin, Ont.

QUESTIONS AND ANSWERS.
Miscellaneous.

WHITEWASH STICKS TO CEMENT.

We built a new house this summer, and I whitewashed the milk-room in the cellar with lime, and the floor is cement. The whitewash dropped on the floor and dried there. I never thought but what I could wash it off, but it is fast. I have tried a good many things, even lye, but it won't come off. Can you tell me what will take it off? F. A. H.

Ans.—It is not likely that anything will take them off. They may wear off in time. They could be covered over by applying a cement plaster to the entire floor.

BANK BARN.

I am going to build a barn in the spring on a nine-foot wall. In order to do away with the long grade to get into barn, I am building in side-hill. One side can be seven feet in ground; the ends will run out about twenty-five or thirty feet. This is a level country—not many bank barns. Some tell me it will be damp; others say they would like to have the hill I have, as they would use it. Give me your opinion. Perhaps we could hear from someone else interested. S. C.

Ans.—The stables of bank barns, properly constructed, are not too damp. Get plenty of light, and a good system of ventilation. Be sure to get good drainage away from the barn, and particularly under the wall which is set in the bank, with a smooth, hard finish on the outside of the latter, to guard against moisture seeping through the wall.

WEIGHT OF SILAGE.

Would you tell me how many hundred pounds there is to the foot in a round silo, 12½ feet across, and what the feeding value is per ton? G. B. S.

Ans.—The weight of a given depth of silage in a silo depends upon many factors. The height of the silage, the degree of moisture, and packing, and the percentage of ears, are some of these. An estimate can only be approximate at best. The weight of average silage in one foot depth in this silo, if well packed, should be about 5,200 pounds. Of course, the top few feet would not weigh this much, but that in the bottom of a high silo would weigh more. The feeding value per ton depends upon the quality of the silage and upon the prices of other feeds. From one-third to one-half the price of good clover hay is a fair estimate.

CEMENT FOR ALLEY—WINDMILL—CATTLE FOR THE NORTH.

1. How many barrels of cement would it take for a feeding alley four feet wide and forty-five feet long, and how much gravel would it take, and what depth would it need to be laid?

2. I intend buying a windmill for grinding rye, peas, and oats. What size of wheel would you recommend, and what size of a grinder, having about 100 bushels to grind?

3. Do Holstein cattle need tender care? I have been told that they are no good for Muskoka District, Ont. What breed would you suggest for mixed farming in this country?

SUBSCRIBER'S SON.

Ans.—1. You would need to put in a layer of coarse gravel or small stones about four to six inches deep under the cement, and cover this with about two or two and one-half inches of cement. Cement required, about three barrels. Gravel, coarse and fine, about 1½ cords, altogether.

2. If you only have 100 bushels of grain to grind, will it pay you to install a mill and grinder? We prefer the large sized mill—fifteen or sixteen feet in diameter, and one of the larger grinders, as the smaller ones are very slow and do not do as good work. If you have sufficient grinding to warrant it, install one of the fairly large outfits.

3. Holstein cattle are doing well in cold climates. No dairy breed will make handsome profits if forced to "rough it" handsomely in the winter. There are many good in the winter. There are many good milk-breeds. For mixed farming, good milk-breeds, individuals of one of the best breeds should do well. For dairying, Ayrshires, Holsteins, Jerseys, or Guernseys, should succeed.

Aspinwall Potato Planter No. 3

Thirty years' experience backs this original automatic Potato Planter. Six Iron Hands drop the seed accurately. The Iron Hand does not tire; hence, can not make a mistake. No human fingers or hands to be cut off. One person drives. The Machine does the rest. Fertilizer and Corn Planter Attachments furnished when desired.

Write for printed matter on our complete line of Potato Machinery—Cutters, Planters, Sprayers, Diggers, Sorters.

Aspinwall Manufacturing Company
Dept. D, Guelph, Ontario
World's Oldest and Largest Makers of Potato Machinery

Accurate Simple

One Person Required to Operate It—Not Two

A "Feed" that adds 25% to the value of Stock in a very short period

Caldwell's Molasses Meal

It does more than that—it also insures the health of your cattle besides reducing general feeding costs by a substantial margin. It is 84% pure Cane Molasses and 16% edible moss selected for its unique digestive action. You know the feeding value of pure Cane Molasses. Caldwell's Meal is the only wasteless form in which it can be fed. It's always palatable and dry to the touch. Takes the place of an equal amount of other cereal, making it more palatable and digestible. Most likely your feedman handles it, but write to us at any rate for the facts.

THE CALDWELL FEED CO., Limited,
DUNDAS, ONTARIO.

ANNUAL PROVINCIAL SALE OF PURE-BRED CATTLE

Under the auspices of the ONTARIO DEPARTMENT OF AGRICULTURE and management of the GUELPH FAT STOCK CLUB, will be held in the Winter Fair Building, GUELPH, ONT., on

Wednesday, March 5th, 1913, at 1 o'clock p.m.

The sale will comprise 40 head of Shorthorns, principally bulls, many of them of the very best Scotch families. For catalogues and further information, apply to

A. E. MEYER, Guelph President
J. M. DUFF, Guelph Secretary

Orchard Grove Herefords I have lately made a big importation of the leading herds of Illinois. In my herd you now have 25 Bulls to select from; a big range of Heifers and Cows. High-class show and breeding stock a specialty.

L. O. CLIFFORD, Oshawa, Ontario, G. T. R. and C. N. R.

The Auld Herd and Pleasant Valley Shorthorns

We are putting three bulls in the Guelph sale March 5th. We have females of all ages and the best of breeding for sale.

Correspondence invited.

A. F. & G. AULD, Eden Mills, Ontario
Bell 'phone. Guelph or Rockwood stations.

15 SHORTHORN BULLS 15

We have been breeding Shorthorns on this farm for over 60 years, and I never saw a better lot of young bulls for sale than I have at the present time. Nearly all of the best Scotch breeding; reds and roans, from 10 to 20 months old. Also a few females and several registered Clyde fillies. Prices within the reach of all. Will quote prices, freight paid to your nearest station.

Claremont Stn., C.P.R., 3 miles. JOHN MILLER, Brougham, Ont.
Pickering Stn., G.T.R., 7 miles.

Shorthorns—Records show that cattle bought from the Salem herd won numerous ribbons the past season. We have others. Several young bulls are priced reasonably.

Elora G. T. R. and C. P. R. J. A. WATT, Salem, Ont.

Springhurst Shorthorns Four of the first-prize Shorthorns at the late Guelph show, including the champion and grand champion fat heifer, were all sired by bulls of my breeding. I have now for sale ten young herd headers of this champion-producing breeding. HARRY SMITH, HAY P. O., ONT. Exeter Station. Long-distance 'phone.

Shorthorns of breeding and quality—Our offering this year in young bulls and heifers, out of Scotch cow, and sired by our great Mildreds Royal, are put up on show lines, and strictly first-class.

GEO. GIER & SON, Grand Valley, Ont., P.O. and Sta.

MEADOW LAWN SHORTHORNS of richest and most breeding, and of high-class type and condition. I can supply young bulls and heifers—Clarets, Roan Ladys, Mildreds, Stamfords, etc. F. W. EWING, SALEM, ONTARIO L.-D. 'Phone. Elora Station.

SCOTCH SHORTHORNS At prices that defy competition. I am offering a big, choice and royally-bred selection of females from calves up.

Also a few right good herd headers, including my great stock bull, Lord Lavendar.

A. J. HOWDEN, COLUMBUS P.O., ONT. Brooklyn Sta., G.T.R.; Myrtle Sta., C.P.R.

Willow Bank Stock Farm—Shorthorn Herd Established 1855. The grand imported Butterfly bull, Roan Chief = 60865 =, heads the herd. Young cows and heifers bred to him; also an exceedingly good lot of young bulls on hand, fit for service and at very reasonable prices. Some from imp. dams.

JAMES DOUGLAS, Caledonia, Ont.

Bone Spavin

No matter how old the Flemish, how lame the horse, or how many doctors have tried and failed, use


Fleming's Spavin and Ringbone Paste

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Woodholme Shorthorns



I have for sale a number of choice young bulls, from 8 to 14 months old (pure Scotch); also a number of heifers, 1 to 2 years old, of this level type, and richest breeding. **G. M. FORSYTH,** North Claremont, Ont.

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Present offering: Young bulls and heifers from grand milking dams. Also a choice lot of Leicester rams and ewe lambs, and ewes of all ages bred to Imp. rams. **W. A. Douglas,** Tuscarora, Ont.

QUESTIONS AND ANSWERS. Miscellaneous:

PEAS.

I am troubling you for a name for a sample of peas sent by this mail. I think that they are the "Early Britain," but am not sure, and I thought you would be an authority. **J. D. F.**

Ans.—The peas are of the "Early Britain" variety.

LANDLORD AND TENANT.

1. When a man is renting a farm, can he re-rent a few acres of land for pasture to another man for a few months, when it is not in agreement?
2. At the last year of a term, in the fall, can another man come on to plow without the consent of the one that is on the place?
3. If a man comes before the time the law allows him, can anything be done?
4. When a landlord is working on a farm when a tenant is on it and paying rent—when it is not in agreement—what can be done when he claims possession and rent?
5. In the fall of the last year, when another person comes to plow, are you forced to give him two stalls in the horse stable when he is asked to put them in the cattle stable?
6. When a man gives another man stable-room for six horses at noon in the fall of the last year, three in the cattle stable noon and night, and three in the horse stable at noon, is there anything to complain of when the cattle stable is warm and comfortable? Ontario.

Ans.—1. Yes, unless there is provision against it in the lease—as there commonly is. One of the ordinary covenants on the part of a tenant is that he "will not assign or sub-let without leave."

2. Not unless the lease provides for it. Usually it does so.
3. He can be forbidden to enter.
4. He can be ejected.
- 5 and 6. He is only entitled to what the lease gives him in the way of such privileges.

CURING PORK—FEEDING QUERIES.

1. I would like to know how to dry-salt fresh pork, and how late in the spring would it do to kill the pork, as I have no cold-storage to handle it in? We have tried brine for the last ten years, and it does not give very good results, as it seems to get a strong taste in warm weather.
2. Is millet seed good for newly-hatched chickens? Is it good to make hens lay?
3. Does it pay to feed young horses chop?
4. What would you advise using in skimmed milk for calves? We use a separator, and the skimmed milk is not enough for the calves.

A SUBSCRIBER.

Ans.—1. To salt pork dry, take a mixture of four pounds of good, fine salt, one and one-half pounds of good, brown sugar, and four ounces of saltpetre, and apply it to each 100 pounds of meat. Repeat this application three times for hams and shoulders, and twice for bacon, rubbing the mixture well in, and always waiting until the former application has struck in. It will require about three weeks to complete the job. The hams and shoulders are then smoked with birch chips, or corncobs, after which they may be wrapped in cotton bags and hung in a dark room. The bacon may be packed in salt in clean boxes. After killing, always allow the carcass to become thoroughly cooled before cutting up. As long as the weather is cold at the time salting is being accomplished, the pork should keep.

2. Millet is often recommended as a feed for young chicks, but there is danger if fed in large quantities of it causing bowel trouble. Feed it scattered where the chicks will have to scratch for it. For older fowls, it is sometimes given as a light feed in litter to compel exercise.

3. It certainly pays to feed grain to young horses, and chopped oats are generally preferred to whole oats.

4. For very young calves, a jelly made from cooking flax for older calves, and chopped grain, and perhaps a little oil meal. Some of the proprietary calf feeds are said to give good results.

HIGH-CLASS SHORTHORN SALE

MR. JAMES COWAN, of Seaforth, Ont.,
having sold his farm, will, on

Thursday, March 6, 1913

At the farm, one mile from the G. T. R. station at Seaforth, sell by auction, positively without reserve, his entire herd of 33 Scotch Shorthorns, imp. cows of the Lady Ythan, Miss Ramsden, Roan Lady and Scotch Beauty tribes, their daughters and g. daughters. Also the 2,450-lb. stock bull, Royalist, a Marr-Clara-bred son of Imp. Blood Royal. The big majority are heifers, nearly all eligible for the American Book. A strictly high-class offering in prime condition.

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CAPT. T. E. ROBSON, Auctioneer.

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10 SHORTHORN BULLS 10

If in need of a bull those that we are offering should interest you. They range from 8 to 14 months old, and are nearly all bred direct from imported stock. We also have females of all ages. Bell 'phone. Burlington Junction, G. T. R. **W. G. PETTIT & SONS,** Freman, Ontario.

1861 Irvine-Side Shorthorns 1912

Offering for sale young bulls and heifers that are the result of over 50 years successful breeding. Pure Scotch, and carrying the best blood of the breed. Few good Oxford Down rams. **John Watt & Son,** Salem P. O., Ont. Elora Station, G. T. and C. P. R.

QUESTIONS AND ANSWERS. Miscellaneous.

DEVOLUTION OF ESTATE.

A died in Saskatchewan without a will. May have three grandchildren living somewhere in the United States, also some brothers and sisters. Which would be the heirs, the grandchildren, or brothers and sisters?

2. How long would brothers and sisters have to wait for estate to be settled if grandchildren cannot be found after advertising?

Ontario. A SUBSCRIBER.

Ans.—1. The grandchildren — assuming that wife and children are dead.

2. It would depend upon circumstances, and would be, at the very least, seven years, and probably very much longer, before the grandchildren and any descendants of theirs would be legally pre-

APPLYING MANURE.

Which is the better way, to place manure on a field in the winter piled in large piles, or small heaps, or spread on the field off the sleigh, field being for summer-fallow, and some of manure left over from last year? I have a manure spreader. Does it spoil manure to heat in field?

Ans.—If the field is level, so that the loss from run-off is very small, spreading on the snow is advisable, as it saves labor. Manure which heats loses some of its fertilizing value, but where it contains the seed of noxious weeds, it often pays to pile it in the field in large piles, so as to heat it and destroy the weed seeds. Piling in small piles is sometimes resorted to where the field slopes considerably and there is danger of loss by run-off during the spring freshet.

ABORTION—SILAGE.

1. A farmer has had eight cows abort their calves, and has one due on March 1st. What can be done to prevent abortion?

2. What is silage worth per ton in a silo, and how many cubic feet would make a ton, in the bottom part of a silo?

Ans.—1. The herd is affected with contagious abortion. Keep the cows that are carrying calves separate from those which have aborted, and thoroughly disinfect with a strong creolin solution. Spray or sponge the external genital organs of all pregnant cows twice daily. Burn all afterbirths. You may try the carbolic-acid treatment on pregnant cows. Have it administered hypodermically by a veterinarian, followed by 20-drop doses on salt, or diluted in water and added to food three times daily for two or three days, then withheld, and repeated for two or three days more.

2. This depends upon the silage, some being worth much more than other. About one-third to one-half the price of clover hay is a fair estimate of the actual feeding value of good silage this year. About 50 cubic feet would be a ton.

SILAGE FOR EWES AND STEERS.

1. Have seventeen ewes with lamb, and am feeding rather dry hay, mostly timothy, with about a pail of oats per day. I have plenty of silage, a little sour (corn quite badly frozen when put in silo). Would it be injurious to ewes to feed about fifty or sixty pounds per day?

2. Is fifty pounds of silage per day too much to feed to steers 20 or 22 months old, along with oat straw, not feeding any chop?

Ans.—1. Good silage is becoming more popular as a sheep feed. Provided your silage is not too acrid, and you commence very gradually, it should do no harm. Start on ten or fifteen pounds, and increase very gradually up to 40 or 50 pounds. After the ewes have lambed, more could be fed. A little care is required in feeding silage before lambing. If the silage is very sour, do not feed it. You might increase the grain ration a little. A pail and one-half would do no harm.

2. Not if they eat it up readily, and show no evil effect, as scouring. It is rather heavy feeding, however, and if a little hay or grain were added to the ration, could be very well cut down to 40 pounds.

SHORTHORNS!

Have now a choice lot of young bulls to offer; also with something nice in heifers. Catalogue of herd and list of young animals on application. H. Cargill & Son, Props., John Clancy, Manager. Cargill, Ont., Bruce Co.



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Offering for winter and spring trade, is six excellent bulls from ten months to two years old. Out of fine dual purpose dams and sired by our noted Scotch Grey Bull 72892. He is a beautiful roan and all quality, he is also for sale or exchange. John Elder & Sons, Hensall, Ont. Station and P. O.

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For Sale—Registered Ayrshire bull, sire Anchenbrain Abram (imp.) 25333; dam Monkland Snowdrop 4th (imp.) 21360. Apply to W. G. STRONG, Gorrie, Ont.

High-class Ayrshires—If you are wanting a richly-bred young bull out of a 50-lb. a day and over cow, imported or Canadian-bred dam and sire, write me. Females all ages. Prices are easy. D. A. MACFARLANE, Kelso, Que.

A woman went to a bird-shop to purchase a canary. She was in search of a good singer, and several were recommended to her. "But," she said, "they seem to be marked very strangely. Are they pure canaries?" "Pure!" cried the proprietor of the shop. "Pure! Why, ma'am, I raised them birds from canary seed."

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S N A P

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QUESTIONS AND ANSWERS.
 Miscellaneous.

SCHOOL AGE.
 Am I compelled to send my girl to school until she is fourteen years of age? My wife is not able to do anything because of rheumatism. I have sent her until she passed into the Senior Third Class, but she is just thirteen, and I have just the one girl and need her at home. P. B.

Ans.—Fourteen is the lawful school age in Ontario. If anyone objects to your not sending the girl to school, you might take the matter up with your school inspector. There may be some excuse under such circumstances, but now is the time for the girl to obtain her education.

DIVERTING A ROAD.
 A applies to Township Council to let him change given road, which cuts through his farm, and run it alongside of his place instead, he to give land for land. Council, represented by two members, meet at said road, and agree by word of mouth to do so, provided he make road satisfactory to Council. This happened last spring. A makes road— which ran through poplar swamp—and asked Council to pass same, which they did upon certain conditions, that he widen and make it a better road, all verbal agreement. A shut up old road before fixing as above. No notices of any kind were posted up or advertised.

1. Were proceedings lawful? Council now says they were not, and will try to re-open road.
2. What is the law in such cases?
3. Can A keep old road from being re-opened? Nearly all of the neighbors object to road being changed. Ontario.

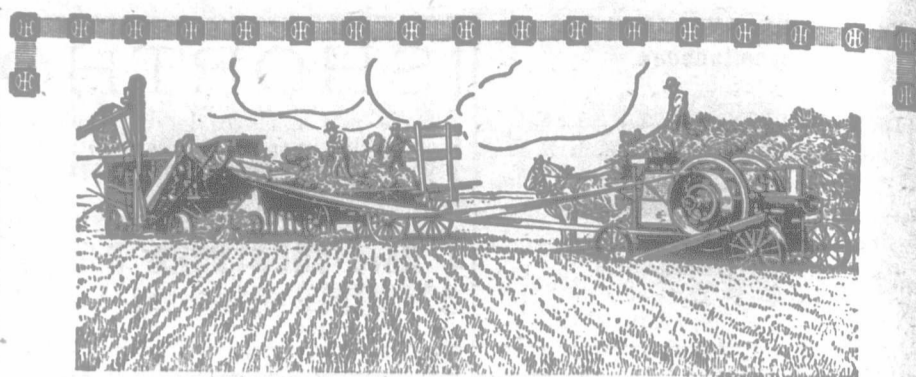
Ans.—1. No.
 2. There should have been a by-law of the Council.
 3. No; but we think that, under the circumstances the Council ought to find some way of compensating A, reasonably, for his work done and expense, if any, incurred in the matter.

SALT FOR OATS — IN ONTARIO.

1. I broke up a piece of sod this fall, and having no other place convenient to haul my manure, I have spread some on it. I think the oats will grow so rank on it they will lodge and go down. Would an application of salt strengthen the straw, and how much per acre would it pay to use? What other stimulant would you advise?
2. I also have a meadow which is rather wet, from which I took the second crop of hay last year. During the great rainy spell it was flooded for three or four weeks. From the wettest part of the field I hauled off four big loads per acre. This was double what I got the first crop, and has led me to wonder if irrigation would not pay, even in Ontario, especially in a dry season. There is a ditch from which it is possible to irrigate part of this field.
3. I also have about two acres of rather light, loamy land, which I can irrigate from a spring. Can any of your readers tell me whether irrigation is a paying factor in the production of alfalfa, raspberries, and strawberries, in this country? This field is too dry to produce a crop in its present condition, but grows excellent pasture.

AN OLD IDAHO IRRIGATOR.

Ans.—1. It is doubtful whether the salt would be very beneficial. Better rely on sowing a stiff-strawed variety, and sowing them rather thin. If salt is used, 200 lbs. per acre is enough.
 2. There are no doubt some locations and special crops in Ontario which could be benefited by irrigation, but in a season of ordinary rainfall, and with a thorough system of cultivation, the commoner farm crops could not be economically irrigated in most sections of this Province. It must be remembered, in connection with the yield of hay here cited, that the season of 1911 was unduly dry, while that of 1912 was very wet.
 3. Can any of our readers answer this question?



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Ayrshires and Yorkshires—We now offer at bargain bull calves dropped in July, 1912. All bred from (imp.) sire and from either imported or home-bred. Some choice February Alex Hume & Co., Menie, Ont. pigs; also young pigs.

Stonehouse Ayrshires
 Of choicest imported stock and with imp. sires and dams. I am offering young cows, 3, 4 and 5 years of age; a grand bunch of imp. yearling heifers, and a particularly good pair of young bulls. L.-D. Phone. HECTOR GORDON, Howick, Que.

City View Ayrshires—Three young bulls fit for service; females from 3 months to 2 years; all young stock 3 years and under from R.O.P. ancestors. Always something for sale. Bull phone connections; 1 1/2 miles from 5 railroad stations. JAMES BEGG & SON, R. R. 1, St. Thomas, Ont.

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Cows in splendid condition, all large, straight animals and due to freshen before 1st April. Also some young stock of excellent breeding, both sexes. **Collier V. Robbins, Riverbend. Bell Phone.**

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Offers young bulls ready for service, one from Calamity Houwtje, winner of 1st prize in cow class at Guelph, 1912; also a half-brother to Pontiac Jessie, sweep-stakes heifer under 36 months; also a few females. Prices reasonable. Write for particulars, or come and make your choice. **MARTIN McDOWELL**, Eastwood Sta., G.-T. R., Oxford Centre, Ont.

The Maples Holsteins

I am now offering for sale 10 young bulls, official record backing on both sire's and dam's side. They would be good for service, and my prices should soon sell them. **WALBURN RIVERS, Foldens, Ont. Oxford County.**

Maple Hill Holstein-Friesians

Special offering: Bulls from 1 to 15 months old. The growthy kind that will give good service. One from a son of Evergreen March, and all from Record of Merit dams. Write for particulars. **G. W. CLEMONS**, St. George, Ont. Bell telephone.

Glenwood Stock Farm 5 BULL CALVES

fit for service, out of big milk-strains, at low figure for quick sale. **THOS. B. CARLAW & SON, WARKWORTH, ONT., Campbellford Sta.**

Ridgedale Holsteins

We have a couple of 3-year-old heifers for sale, one due to calve in February, the other is bred; both are milking now; also a few bull calves for sale, one over a year old. Shipping stations: Port Perry, G. T. P., and Myrtle, C. P. R., Ontario County. **R. W. WALKER, Utica, Ont.**

Young Holstein Cow

For sale: 4 years old, due to calve in February; also her heifer, 1 year and 4 months old; served by pure-bred bull. Will sell at reasonable prices. **A. D. URLIN, Dutton, Ont.**

QUESTIONS AND ANSWERS. Miscellaneous.

WARTS ON TEATS.

How can I remove warts on teats of a Jersey cow?

OLD SUBSCRIBER.

Ans.—Some say repeated application of castor oil will cure. If this fails, wait until the cow is dry and remove the warts by applications of butter of antimony applied with a feather. This is very caustic, and care should be taken not to allow it to cover a larger surface than that of the wart itself. This should not be applied while the cow is in milk.

GREASE.

A heavy stallion, thirteen years old, is troubled with greasy eruptions on heels. Can you suggest a cure? J. C.

Ans.—It is doubtful whether a complete cure can be effected. Prevention consists in feeding moderately to lightly on grain, and exercising regularly. Curative treatment consists in purging with 8 drams aloes and 2 drams ginger, prepared by a druggist, and given as a ball, feeding bran mashes till purged. Follow up with 1 1/2 ounces Fowler's Solution of Arsenic twice daily for a week. Local treatment consists in applying warm poultices of linseed meal, with a little powdered charcoal, every six or seven hours for a couple of days and nights, and then applying three times daily a lotion of one ounce each of acetate of lead and sulphate of zinc, and two drams of carbolic acid, to a pint of water.

MISCELLANEOUS QUERIES.

1. I have two fields which are pretty well run down, being cropped with oats for some years, and have enough barnyard manure for one field, and intend sowing fertilizer on the other. One field I intend sowing to barley and oats, and seeding down, and the other to oats, but not seeding it. Which field would it be best to put the fertilizer on?

2. Could fertilizer be sown with an ordinary broadcast seeder, and should it not give good results if seed was also broadcasted after sowing fertilizer?

3. Does land need to be rich to grow Hungarian grass? What time should it be sown, also thickness?

4. Have a quantity of timothy seed. Would it be advisable to seed a wheat field with this alone in spring, and what rate would give a good stand of grass? As clover is so dear, I do not want to buy it.

5. Do you consider sugar beets as good for milk cows as either of the other roots? Should they be sown earlier than mangels? R. M. A.

Ans.—1. There are several factors to be considered. If the fields are now fairly well supplied with humus, and the land is in a fairly good condition, it would be advisable to seed down, provided clover was used in the seeding, the field which gets the commercial fertilizer. The field getting the manure will get a large addition of humus, and if the other field was sown to clover with a grain crop and a commercial fertilizer, the clover would largely supply humus, whereas if the manure and clover both went on the one field, it would be getting all the humus, and the other field none. There are other factors which enter into this, however, as the relative condition of the two fields, and whether or not clover is to be part of the seeding mixture.

2. It requires a special drill, or it may be sown by hand. A good time to apply is when cultivating the land in preparation for the crop. One-half the nitrogen may be held and applied when the plants are two or three inches high.

3. Millet will grow on almost any soil, but for good yields the soil must be in fair condition. Sow early in June at the rate of about one bushel per acre.

4. Better sell some of the timothy and buy some clover. It always pays to give a liberal seeding. Sow from 8 to 12 lbs. of red clover per acre, and from 4 to 6 lbs. of timothy.

5. Sugar beets are very satisfactory feed for milk cows. Sow as early as possible in the spring, after the grain seeding is finished. Mangels should be sown at this time.

HIGHEST PRICE FOR CREAM

T. EATON CO. LIMITED is now paying 31c per lb. for Butter Fat. We buy cream, sweet or sour, of good flavor. We furnish the cans and pay the express charges within a radius of 250 miles of Toronto.

We test and weigh each can on arrival, and send you a statement for same.

We pay all patrons once a week, and the price is increased as the price of butter advances.

Drop us a card, and we shall be pleased to furnish you with any further information you may require.

THE T. EATON CO. LIMITED
TORONTO - CANADA

Livingston's OIL CAKE MEAL

Is the most wholly nutritious stock food you can buy. Made of the purest linseed—by the celebrated Old Patent Process (which makes it keep three or four years, if necessary) proved by feeding tests, both practical and scientific, to be 95% digestible.

Even if LIVINGSTON'S OIL CAKE MEAL costs twice as much as the other foods which do not keep and cannot be half digested, it would pay every farmer and dairyman to get LIVINGSTON'S OIL CAKE MEAL. The cost is only a trifle higher.

LIVINGSTON'S OIL CAKE MEAL is really cheapest in the end—quickly increasing and improving the milk and healthily FATTENING CATTLE.

Ask your dealer. If he cannot supply you, write us.

THE DOMINION LINSEED OIL CO. LTD.

Manufacturers. BADEN, ONTARIO. MONTREAL, QUEBEC.

Brampton Jerseys

Bulls fit for service are getting scarce. Just a few left. Yearling heifers in calf are in great demand, 6 for sale; 6 now being bred. Brampton Stockwell the sire. A few good cows and some calves for sale. Production and quality.

B. H. BULL & SON, Brampton, Ont.

LAKEVIEW HOLSTEINS

We have a few bulls left that are ready for service, and must sell them now, as our barns are full. They are sired by Count Hengerveld Payne De Kol, or out of his daughters by Dutchland Colantha Sir Mona, and all their dams are in the Record of Merit. For immediate sale the prices will be greatly reduced. A post card will bring extended pedigrees by return of mail.

E. F. OSLER, BRONTE, ONTARIO

FAIRVIEW FARM'S HERD

OFFERS sons of Pontiac Korndyke 25983, the greatest sire that ever lived, and the only bull that ever sired 13 daughters that have made 7-day records above 30 pounds each. Do you want your next bull to be a brother to such cows as Pontiac Lady Korndyke (38.02), Pontiac Pet (37.67), Pontiac Clothilde De Kol 2nd (37.21), Sadie Vale Korndyke (36.20), and eight others above 30 pounds? If you do, write me for price on a son of Pontiac Korndyke. I also have sons of Rag Apple Korndyke and Sir Johanna Colantha Gladi. **E. H. DOLLAR, HEUVELTON, NEW YORK. Near Prescott.**

Summer Hill Holsteins

Would you like your next bull to be from the same sire as the heifer that holds the world's record for yearly work, and the same sire as the Champion Cow of Canada in the seven day work, and the same sire as the Champion four-year-old of Canada in the thirty day work? We have bulls of this breeding to offer whose dams have records of over 27 lbs. We have also some extra choice heifers bred to our junior herd bull whose dam has a record of 24.60 lbs. butter in seven days and 111 lbs. milk a day. Yorkshires of all ages. **D. C. FLATT & SON, R. R. No. 2, Hamilton, Ont.**

HOLSTEINS AND YORKSHIRES We have at present a number of two-year-old heifers, some in calf and some just bred, also our stock bull King Peter Teak sired by Peter Teak O. A. C., dam Queen Mabe. Also some sows safe in pig. **A. WATSON & SONS, R. R. NO. 1, ST. THOMAS, ONTARIO.**

Choice Bull for Sale—One year old and ready for service. Wonderful depth and conformation, his dam, "Jan the Jewel Mechthilde 3r 1," champion cow at Toronto. Record, 22.21 lbs.; g. dam 27 lbs.; sired by our great stock-getter, "Grace Fayne 2nd Sir Colantha." Price \$200. Also young females. **M. L. HALEY & M. H. HALEY, Springfield, Ont.**

Woodbine Holsteins Herd headed by King Segis Pontiac Lad, whose sire's dam is the champion cow of the world. Sire's sire is the only bull that has sired five four-year-olds that average 30 lbs. each. Dam's sire is the bull that has sired two 30-lb. three-year-olds. His two great grand sires are the only bulls in the world that have sired two 37-lb. cows. Bulls and bull calves for sale. **A. KENNEDY, AYR, ONT.**

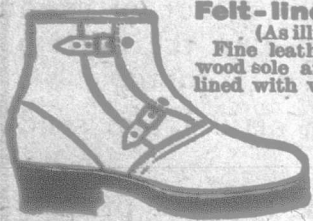
Evergreen Stock Farm High-class Registered Holsteins For sale: A few choice young bull calves and females, all ages; good enough for foundation stock **A. E. HULET, Norwich, Ontario.**

Holsteins of Quality—No more bulls at present. Write for catalogue of our sale to be held on the farm **February 25th, 1913.**

MONRO & LAWLESS, Elmdale Farms, Thorold, Ontario

NO MORE WET OR COLD FEET!!

With Health Brand Clogs on, the man or woman who works in the wettest, coldest places always has warm, dry and comfortable feet. Try a pair yourself this winter.



Felt-lined CLOGS
(As illustrated)
Fine leather tops, hardwood sole and heel, cosily lined with warm felt. All sizes for men and women, delivered, all charges paid, **ONLY \$1.75**

Higher 3 buckles \$2.25
High-legged Wellingtons \$2.75 and \$3.25
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Or, if you wish to learn more about these wonderful Clogs before ordering, write to us for catalogue booklet, telling how Health Brand Clogs are made, etc., etc. Dealers, write for proposition.

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The "STAY THERE"
Aluminum Ear Markers
are the best. Being made of aluminum they are brighter, lighter, stronger and more durable than any other. Fit any part of the ear. Nothing to catch on feed trough or other obstacle. Your name, address and any series of numbers on each tag. Sample tags, catalogue and prices mailed free. Ask for them. Address **WILCOX & HARVEY MFG. CO.,** Dept. D, 325 Dearborn St., Chicago, Ill.

Cattle and Sheep Labels

A cent spent now may be the means of saving you three calves next fall. Send your name and address for free sample and circular. It is no trouble, and you can judge them for yourself. Write to-day.

F. G. JAMES, Bowmanville, Ont.

Farnham Oxfords and Hampshires. The oldest established flock in America. Present offering: a few two-shear and older ewes of both breeds, bred to our imported champion ram. Also a few nice ewe lambs by imported sires. Prices reasonable. **Henry Arkell & Sons, Arkell, Ont.** L.-D. phone in house.

Dorset Ewes

In lamb. Ewe lambs. Chester White Boars about five months old. One Holstein bull 12 months old. All of the choicest breeding, and will be sold at a bargain to make room.
R. H. HARDING, THORNDALE, ONTARIO
Mapleview Farm.

ALLOWAY LODGE STOCK FARM
SOUTH DOWNS
ANGUS
COLLIES

The best in their respective breeds. Write for information to:
ROBT. McEWEN, Byron, Ont.
R.R. Stn. and Tel. Office, London.

For Sale—A number of young, registered Lincoln Breeding Ewes and Ewe Lambs of choice quality and breeding, and bred to first-class rams. For particulars, apply to:
S. W. EDWARDS, Watford P.O., Ont.

Quality Oxford Downs Winners, bred from Imp. and prize-winning stock. 1 and 2 shear rams and ewes, ram and ewe lambs; many winners among them, the highest types of the breed.
E. BARBOUR, Erin P.O. & Sta. L.D. Phone.

Oxford Down Sheep, Shorthorn Cattle, Yorkshire Hogs—Present offering: Lambs of either sex. For prices, etc., write to **John Cousins & Sons** Harriston, Ont.

Newcastle Tamworths and Shorthorns
Present offering, Seven boars from 6 to 10 months old; boars and sow pigs 6 weeks to 4 months; so we bred and others ready to breed, from such noted stock as Colwill's Choice, Canada's champion boar, 1901, '02 '03 and '05, and Imp. Cholderton Golden Secret. Also a few choice Shorthorn heifers in calf; beef and milk combined. Show stock a specialty. Prices right. L. D. Phone **A. A. COLWILL** Newcastle, Ontario.

Poland-Chinas and Shorthorns—Am offering now 20 good young sows for spring farrow. This herd contains more Toronto winners than all other herds of the breed combined. Also choice young Shorthorns of either sex. Prices easy. **GEORGE G. GOULD, Edgar's Mills, Essex Co., Ont.**

Duroc Jersey Swine AND JERSEY CATTLE.
Grand stock, either sex, constantly for sale. Price reasonable. **MAC CAMPBELL & SONS, Northwood, Ontario.**

TAMWORTHS A few sows bred to farrow in February and March; also choice pigs from three to five months. Bell phone, **HERBERT GERMAN, St. George, Ont.**

QUESTIONS AND ANSWERS.
Miscellaneous.

KILLING RATS.

Could you give a sure remedy for killing rats which are digging in silage? Silos are inside, and rats are constantly digging up fresh corn through the rotten top of one which is not opened. Traps have been smoked, but of no avail. Rats go in through doorway of silo.

A. H.

Ans.—Rat-proof floors (cement) and cats, are the most effective rat destroyers, but in a case of this kind they are often of little use. If the rats have holes around the building, saturate a rag with carbon bisulphide, ram it down the hole, and cover over. Be careful not to handle this material near a lighted lamp or lantern. Is there no trap that is effective? Some say that scattering pulverized copper sulphate in their runways and burrows will cause them to seek other quarters, because it makes their feet sore. Can any of our readers add anything?

WIDOW ADMINISTERING ESTATE.

I had a son die in the spring. He did not leave a will. Left a wife and one child.

1. Could the widow take the stock and the house furniture away without having it valued?
2. She made a sale, and sold part of the stock and implements, also sold some of the stock to her friends. Was it legal for her to do so?
3. She is not paying any of the debts. How long can she keep the creditors back?
4. Can the creditors put their claims against the farm?
5. What is the time limit?
6. His brothers worked for him off and on for four years without having any bargain made. Can they collect wages?
7. I lent him a horse four years ago. Can I take the horse now?
8. Can I charge for his work?
9. I am security for the child, can I make her give account of the money received if there isn't enough in the stock to pay the debts?
10. Can she be compelled to sell the farm?
11. If so, what is the length of time? Ontario.

Ans.—1. It would depend upon circumstances. But while, as widow, she would be entitled to apply to the Surrogate Court to be appointed administratrix of the estate, and would be in a position to do various things in relation to the affairs of the estate pending the grant to her of letters of administration, one of the things she would be called upon to do at the very outset would be to give an inventory and valuation under oath, of the entire estate, real and personal; and in view of what you state in connection with some of your other questions, she has probably done this.

2. Having regard to what we have already said, in answer to your first question, it may be said that circumstances may have been such as to warrant the partial sale mentioned.

3. She cannot legally restrain them from proceeding forthwith after grant of administration if they are so disposed to do.

4. Not unless the particular creditor's claim is upon a judgment unsatisfied to the extent of at least \$40, and an execution thereon has been issued against the goods of the estate and returned nulla bona.

5. That depends upon the nature of the claim. There are various periods of limitation. Perhaps the most common is six years from the time the debt matured.

6. Probably not.

7. Yes,—provided you are in a position to satisfactorily prove that it was a case of mere loan.

8. Probably not.

9. We do not see that you can legally require this.

10 and 11. Nothing appears in your statement of the case to indicate that she can be compelled to make the suggested sale.

Roofing

Free Samples
Free Catalogues
Free Plans

If you are interested, send us a postcard with the word "Roofing" and your name and address -- then we will send you valuable information about your **ROOFING NEEDS**

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252 Stone Road, Galt, Ontario.

MAPLE VILLA OXFORD DOWNS AND YORKSHIRES

This fall I have the best lot of lambs I ever bred. I have plenty of show material, bred from the best stock procurable in England. Order early if you want the best. Ram lambs, shearings and ewe lambs. Yorkshires of all ages.

J. A. Cerswell, Bond Head P. O., Ontario
Bradford or Beeton stations. Long-distance phone.

Belmont Shropshires, Southdowns

I have a grand lot of rams and ewes for sale, both breeds. Anyone wanting a good ram, or a few good breeding ewes, should write me at once and get the first choice.

C. Hodgson, Brantford, Ont.

COTSWOLDS AND SHROPSHIRE At Toronto I won 1st on flock, champion on both ram and ewe in Cotswolds. I have for sale a big lot of shearing rams and ewes, ram and ewe lambs of both breeds; strictly high-class.
J. MILLER, JR., "BLAIRGOWRIE FARM," ASHBURN P. O., ONTARIO

Large White Yorkshires and **Maple Grove Yorkshires & Holsteins**

Have a choice lot of sows in pig. Boars ready for service and young pigs of both sexes supplied not akin at reasonable prices. All breeding stock imported, or from imported stock from the best British herds. Write or call on **H. J. Davis, Woodstock, Ont** C. P. R. and G. T. R. Long-distance phone.

Cloverdale Berkshires—Present offering: Sows bred and others ready to breed; also younger stock of both sexes. Prices reasonable.
C. J. LANG, Hampton, Ont. Durham Co.

Woodburn Berkshires are founded on the famous old Sally tribe, noted for big size, length of body and strength of bone. We can supply pairs and trios not akin. Show stock a specialty. Also high-class Cotswolds, ram and ewe lambs, shearings.
E. BRIEN & SON, RIDGETOWN, ONTARIO

Pine Grove Yorkshires Bred from prizewinning stock of England and Canada. Have a choice lot of young pigs of both sexes, pairs not akin, to offer at reasonable prices. Guaranteed satisfaction.
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Present offering: Select sows. Choice boars ready for service; also younger stock, the get of Duke of Somerset, imp., and out of imported dams. Satisfaction and safe delivery guaranteed. **H. M. VANDERLIP, Breeder and Importer, CAINSVILLE P.O., Langford station, Brantford and Hamilton Radial.**

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These tools are Labor and Money savers and should be on every farm and garden. Our method of making these specialties assures adaptability, strength and service at the minimum price for the best goods of their kind on the market.

"EUREKA" GARDEN SEEDER



The only rear-wheel driven Seed Drill on the market. The Eureka will handle the most delicate seed without bruising or breaking and will sow evenly to the last seed. Can be instantly converted from a regular seed sower into a Hill-Dropper. No waste of seed when turning rows. For sowing Sugar Beets and all garden seeds this machine is unequalled. Sold with or without the Cultivator Attachments.

"EUREKA" WAGON BOX AND RACK

Without wings and ladders it is an excellent wagon box. With them it is a perfect Hay, Stock, Wood, Corn or Fruit Rack. Can be instantly adjusted to any position without wrench, hook or rope.

"EUREKA" SANITARY CHURN

The only Sanitary Churn made. Barrel of finest stoneware, top of clear pressed glass, very easy to operate. Three sizes 8, 10 and 12 Gallons.

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The Combination includes Anvil with vice, Pipe Vice, Drill Attachment, Saw Clamps and Hardie. An excellent article for repairing tools and machinery. Weighs 60 lbs.

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Our latest catalogue describes our entire line. It shows our Cultivators, Seeders and Tools as they are and gives a full description of their construction in detail. Write for free copy.

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WOODSTOCK, Ontario. 22

GOVERNMENT STANDARD SEEDS

Here we are again with some splendid seeds for 1913. If you bought of us last year you know our quality, if you did not, try us now. We send our seeds under the guarantee that if they do not entirely satisfy on arrival, you may ship them back at our expense. Most of our seeds we buy direct from the farmers here who grow them.

ALFALFA.—Our home-grown seed was a failure this year, as the wet weather caused plants to send out new growth instead of seed. We have imported some specially suited to our soil and climate, which we recommend. Price, \$12.00 per bushel.

RED CLOVER.—A splendid, clean, bright sample. Price, \$15.00 per bushel.

ALSIKE.—Clean and bright. Price, \$15.00 per bushel.

O. A. C. No. 21 BARLEY.—60c. per bushel.
SILVER MINE OATS.—60c. per bushel.
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These prices are good till next issue. Bags extra—cotton 25c., jute 10c. Cash must accompany order. Ask for samples.

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ISLAND OATS

If the farmers of the Maritime Provinces, Quebec and Ontario want to make sure of getting the highest possible grade of seed oats for the spring of 1913, apply to us at once. To prevent a repetition of the disaster that befell so many farmers last year by sowing devitalized grain, we have stored at Point Du Chene and Pictou 50,000 bushels of large, selected, separated white seed oats, true to name and free from noxious weed seeds. If will be the farmers' own fault if they do not procure good seed, as the extra yield of these oats pays twice over the cost of the seed. Our firm name is stencilled on every bag. Do not allow the dealers to give you other than Read's oats for seed.

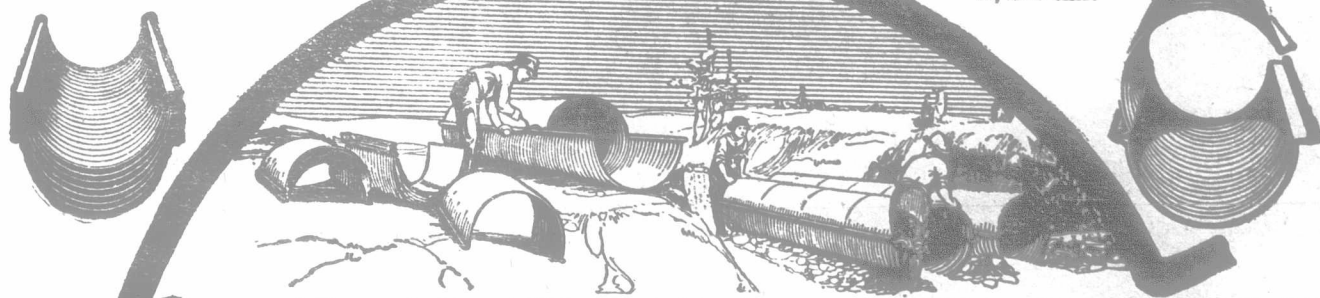
JOS. READ & CO., Ltd., Summerside, P. E. I.

STAMMERERS

can be cured, not merely of the habit, but of its cause. The Arnott Institute has permanently restored natural speech to thousands—is doing it to-day. Write for full information and references to:
The Arnott Institute, Berlin, Ont., Can.

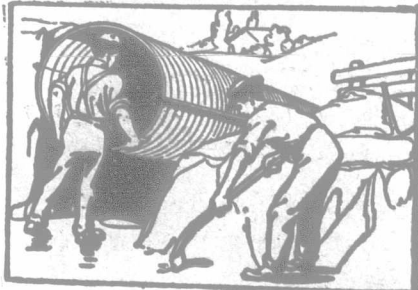
The culvert comes in nested bundles, easy to carry in wagons, right to the road being repaired.

It fits together very easily, when you are ready to instal it, like this.



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HAVE your township use Pedlar "Toncan Metal" Culvert instead of wood or concrete. Frost and ice cannot break it. It will not wash out. It is good for years and years, because "Toncan" is a non-corroding metal. It needs almost no excavating, and is set in an hour or two. This Pedlar Culvert is famous. It has been installed in hundreds



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FREE

A Sample of our Culvert and a Special Book about it to any Farmer or Reeve or Municipal Officer —

of bridges and road culverts. Get our free miniature sample and book on this

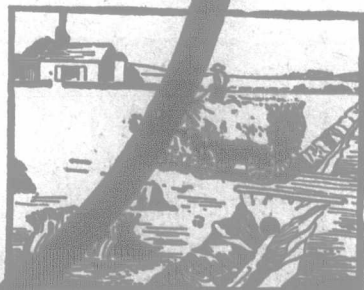
culvert, and see that it is used this year. Send now. Learn how to permanently improve roads with little work. It makes good roads in your township. See the Reeve uses it.

Improve Your Farm With Pedlar Culvert

Remember that you, personally, can bridge farm ditches and drains with Pedlar Culvert. You can use it as well-curbing instead of stonework. You can bridge your gateway entrance. Pedlar Culvert cannot wash out, is frost-proof, is easy to instal, and above all is in non-corroding "Toncan," not steel.



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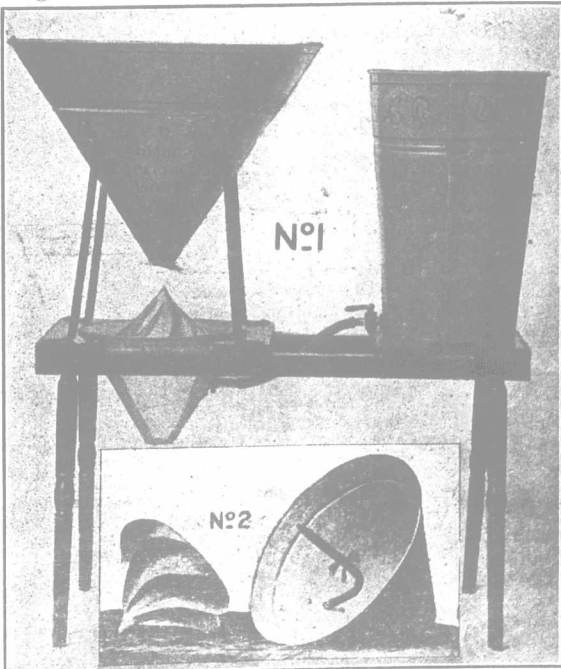


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For the Prevention of Smut Germs, etc.



(Patented Jan. 17th, 1911)
The fastest and most economical Grain Pickler on the market. This Seed Grain Pickler is a self-operating machine, supplying its own power by the force of the grain as it leaves the hopper, falling on the turbine situated in the lower hopper, causing a quick revolution of the turbine. Cut No. 1 is the complete machine. Cut No. 2 is the turbine and sprayer and lower hopper. The pipe, which is shown in the centre of the hopper in cut No. 2, delivers the liquid to the interior of the turbine, and it is then forced by gravity to pass through openings in the bottom outer edge, spraying the grain. Full capacity: Wheat, 135 bushels per hour; peas, 115 bushels per hour; barley, 100 bushels per hour; oats, 90 bushels per hour, and other grain accordingly, but can be regulated to lessen the capacity as required. The machine can also be used for mixing grain. We guarantee this machine to give perfect satisfaction or money refunded. Prices on application.

Directions for using.—Use 16 ozs. of liquid formaldehyde to 36 gals. of water, and thoroughly moisten the grain with the solution. Oats, barley and millet will require more water than wheat or peas. The best method is to apply it at night. Throw the grain in a heap, cover with a blanket, and bag in the morning. This method gives the gas a chance to penetrate the grain. Manufactured by

THE DOMINION SPECIALTY WORKS, STRATFORD, ONTARIO
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Because there are millions of acres of agricultural land in Northern Ontario, in some cases free, and in others at 50 cents per acre, excelling in richness any other part of Canada, blessing and waiting to bless the strong, willing settler, especially the man of some capital. For information as to terms, home-stead regulations, special railway rates, etc., write to
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To know—when to sell your live stock and produce so as to get the best market prices.

To get the weather reports in advance and so avoid damage to your crops.

To order spare parts for broken farm machinery, without having to lose time and drive miles to do it.

To summon medical assistance—instantly—in case of illness or accident.

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You Can Do All This—and Much More When You Have a Telephone

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YOU and your neighbors can build, own and operate your own, Self-paying Rural Telephone System at a cost to each of the value of about 20 bushels of wheat.

WE—the Northern Electric & Mfg. Co., Limited—the largest and oldest telephone manufacturers in Canada—will help you to do it and guide you in every step of the construction work.

OUR FREE BOOK—How to Build Rural Telephones—the most complete work of its kind ever published—is yours for the asking.

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IT CONTAINS one hundred pages—profusely illustrated—and makes the construction of a telephone system as easy as building a fence.

BE THE FIRST man in your district to suggest the idea to your neighbors. Study our Free Book so that you will know all about Rural Telephones—then it will be easy to interest your friends.

YOU CAN GET our book by simply writing for it—it costs you nothing—and we will be glad to know that you are interested.

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THE Northern Electric AND MANUFACTURING CO. LIMITED
 Manufacturer of Telephone and Fire Alarm Apparatus, and Distributor of Electrical Supplies for every possible need

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