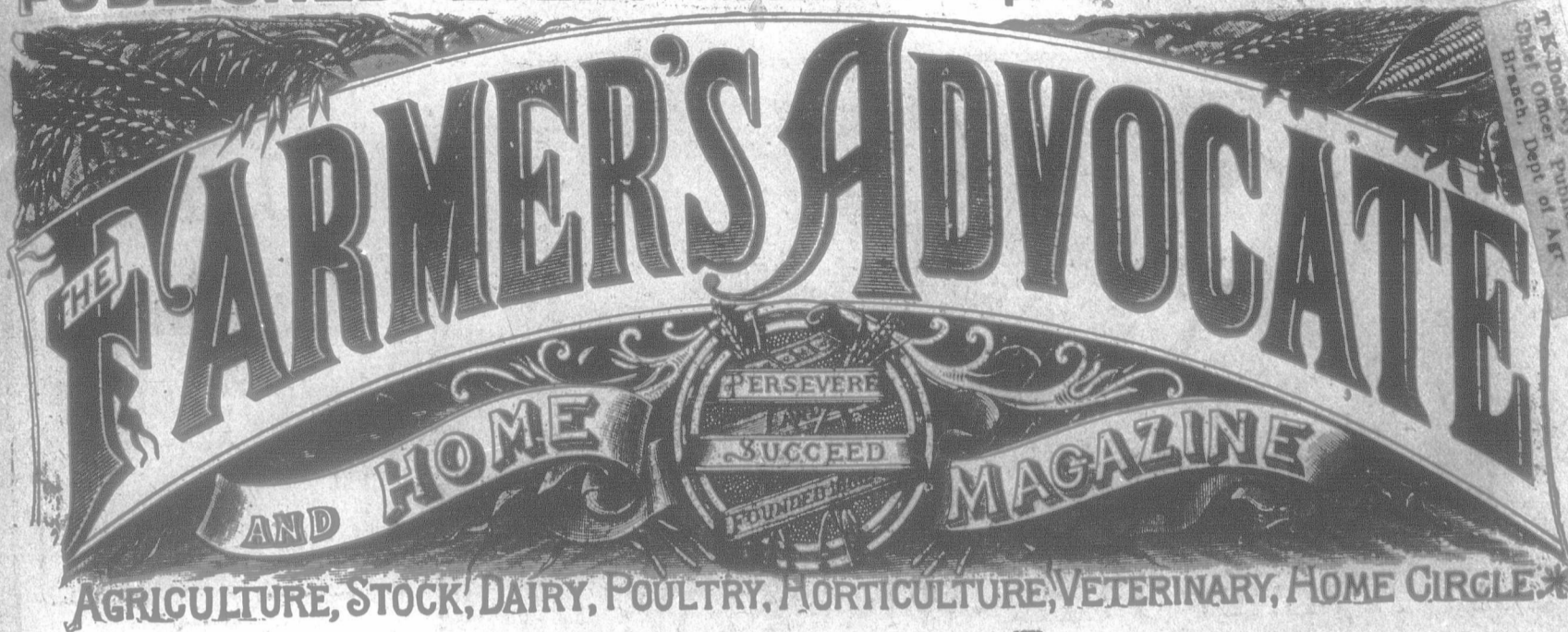


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Vol. XLVIII.

LONDON, ONTARIO, DECEMBER 4, 1913. Publications Branch, No. 1079

For Baking Success —This Oven Test

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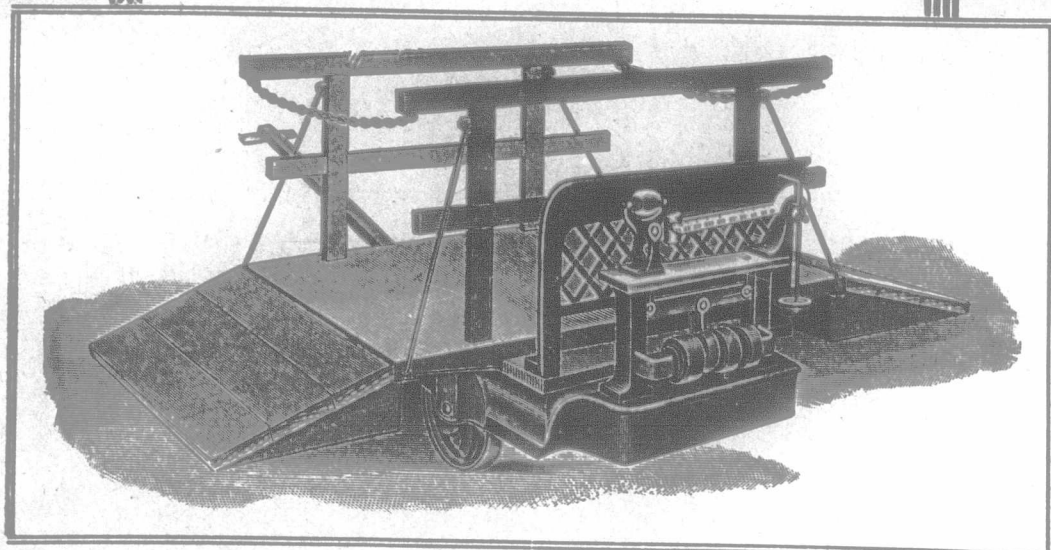
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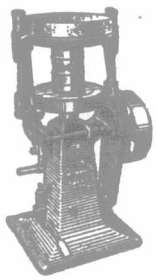
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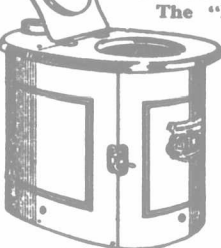
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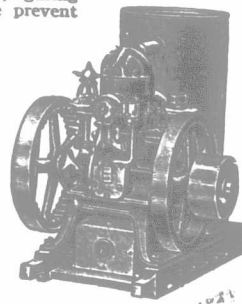


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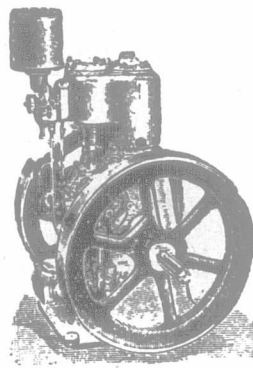


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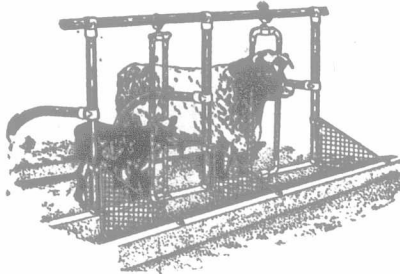
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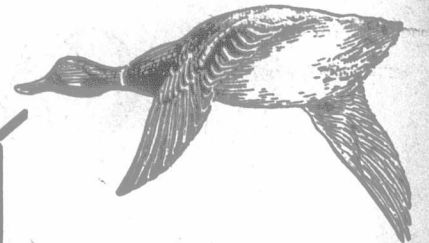
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Vol. XLVIII.

LONDON, ONTARIO, DECEMBER 4, 1913.

No. 1079

EDITORIAL

This is the season for renewings.

The winter show season is now in progress. Attend.

Most of the fall plowing should have been done this year.

Two Indian summers were experienced in many localities this season.

On the farm, knowledge more than ever before, is a source of strength.

Renew the pleasure of your home, comforts of your family and profits of the farm.

Our annual Christmas present to our readers will be sent next week in the form of the Christmas Number.

There is safety for the people in publicity; but it is not enough that the press of the country be unhampered—right ideals must guide.

What new buildings and what re-arrangement and repairs do you purpose making next season? Now is the time to lay the plans.

Without the very best available papers devoted absolutely to the interests of the farm and the family, no farm home is properly equipped for the coming year.

Like the every-day farmer on his way to factory or market town, if any class in the community deserves a good road to travel over, it is the rural mail carrier.

"Persevere and Succeed," the motto of "The Farmer's Advocate and Home Magazine" for nearly fifty years, is its motto still, and is a good one for every farm.

Thoroughness is effective in all things, and he who does not slight anything is most successful. This applies to the little things which go to make a success of winter feeding of live stock.

How many of us enter upon our winter's work with as much enthusiasm and put as much energy into it as we do the spring and summer work? Yet it is or should be just as important and valuable on the farm.

Hon. Mr. Houston, the New U. S. Secretary of Agriculture, in a recent address shows that he has gripped the right end of the stick in saying that in the struggle to develop industrial enterprises the foundation of all industry, farming and rural life, has been neglected.

The Canadian railways are calling upon the government for increased subsidies for carrying the mails—four millions instead of two—possibly in anticipation of the parcel post system. Less than that would probably be welcomed by the faithful couriers on the rural routes.

Anyone who carefully examined the fruit at the recent exhibition in Toronto could not but be enthused. This enthusiasm should be carried to the home orchard, where, by persevering effort and determination, the old trees may be made to yield fruit to compare favorably with the best.

Our Duty to the Family.

One of a farmer's first duties is that the farm be so conducted as to provide for the comfort, education and wholesome recreation of the family. Our readers tell us in renewing their subscriptions, which thousands of them have been doing for ten, twenty, thirty and forty successive years, that no one aid has been so valuable to them in the practice and business of farming as the regular, weekly visits of "The Farmer's Advocate and Home Magazine." It has been enabled to render this good service largely because of the accumulated experience and resources of nearly half a century. Without any over-statement it can be said that this paper stands in a class by itself, and is so recognized by the public both on this continent and abroad. There is a reason for this in its record, and also in the fact that, coupled with liberal management, all its editors are, or have been, actively and successfully engaged in farming. For the benefit of its readers a farm is conducted, where methods and materials are put to the practical test with a view to determining what is best, and the cost. No other paper affords its readers so unique a service. And then it would hardly be possible for any publication to have enlisted the services of a larger, more capable and loyal staff of practical contributors than those who, from week to week, provide trustworthy material for its columns, in which, without any extra cost to readers, thousands of perplexing questions are answered during the year, in many cases saving them hundreds of dollars. The greatest possible care is taken that only clean and trustworthy advertising shall appear in its pages, thousands of dollars' worth being rejected every year.

Reliable market reports by men actually in the yards, possessing first-hand knowledge of what is going on, are published for the guidance of our readers.

A service like the foregoing covering all departments of the farm, cannot fail to help any thoughtful man in making a success of his farming operations, and therefore properly providing for the present and future needs of his family.

In the next place, "The Home Magazine" is conducted by editors and contributors who know home life on the farm and its needs by experience, and are in hearty accord with every real movement and means for brightening and bettering the home life of adults as well as the younger people. The former prizes its visits as an old friend, and the latter are the first to scan its welcome pages so full of what is beautiful and instructive. Practically every mail brings us letters of gratitude for the helpful, entertaining and uplifting value of "The Home Magazine." To neglect providing a family with such rich stores of reading matter at so trifling an outlay, is a short-sighted and serious error in these days when so much misleading and questionable literature is afloat in books and papers.

The Profit of Parcel Post.

A report from Washington states that the current year's operation of the newly established parcel post system in the United States shows a profit of approximately \$30,000,000. This, if correct, should cause the people to do some hard thinking. Even allowing some extra compensation to the railways for their increased share in the service, there would still be a big amount to the good. Parcel post is really the people, through the government, undertaking to do their own business. The move was strenuously re-

sisted by the express corporations, and people must now ask what were the sums exacted from them in former times by these subsidiary concerns of the railways, largely capitalized with water, if under the greatly reduced government rates of carriage, such a large surplus can be shown? It has been foreshadowed that the inauguration of parcel post in Canada will show correspondingly favorable returns, and politicians of the mercenary order may be smacking their lips over the prospects of more money to spend. Other branches of the postal service may not be able to make ends meet, but beyond being made reasonably self-sustaining we submit that the postal service should not be run as a money-making concern. For the people the only safe course is to keep the service down to about actual cost. It is the people's business. Let it be conducted economically. The sound policy is to make every tub stand on its own bottom, and not put temptations in the way of patronage hunters. Full treasuries will inevitably breed extravagance even without positive malfeasance. Evidently the initial U. S. parcel post rates were fixed too high, and the demand is that they be brought down. The lessons for Canada, where a parcel post has been promised, are obvious. If rates are fixed so as to create surpluses, signs are not wanting already of alacrity on the part of others to swallow them up. Parcel post may be made of special convenience to the farming community, and should be so operated as not to needlessly burden the farmer for its upkeep.

Together We Stand.

When producers become organized, then they begin to co-operate. Three agricultural organizations or associations met in annual conventions in Toronto recently, and, at every one of them, co-operation was either directly or indirectly the dominant feature. It was the center of the most important discussions of the bee keepers; it characterized most of the addresses of the prominent vegetable growers, and cropped up strongly in many of the addresses delivered to the fruit growers. Speakers dealing with subjects which one would judge from their wording were far removed from co-operation, generally made special mention of the advantage of working together, or it was apparent from what they said that it was considered by them one of the underlying principles leading to greatest success. Co-operation in producing, in buying supplies, in selling, transporting and marketing produce, in planting trees and other fruits and vegetables, in obtaining sufficient and suitable labor, and in a thousand and one minor details of the agriculturists' business was dwelt upon as the one means of satisfactorily overcoming many of the obstacles purposely or circumstantially hampering the producer of honey, fruits and vegetables, in his business. Organized effort always brings results. It may take time, but it is sure to hasten better conditions. If associations did nothing else but further the co-operative idea they would be invaluable to producers. Those who read our reports of the conventions alluded to would learn something of the saving effected in buying supplies. They would also see how important it is in planting fruit and vegetables to co-operate with others in the district, so that large quantities of uniform varieties and quality may be shipped from the one section, thus effecting an immense saving in transportation and marketing and ensuring better returns, and marketing facilities. The larger the quantities mar-

The Farmer's Advocate AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL IN
THE DOMINION.

PUBLISHED WEEKLY BY
THE WILLIAM WELD COMPANY (LIMITED).

JOHN WELD, MANAGER.

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

1. THE FARMER'S ADVOCATE AND HOME MAGAZINE is published every Thursday.
2. 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.
3. TERMS OF SUBSCRIPTION.—In Canada, England, Ireland, Scotland, Newfoundland and New Zealand, \$1.50 per year, in advance; \$2.00 per year when not paid in advance. United States, \$2.50 per year; all other countries 12s.; in advance.
4. ADVERTISING RATES.—Single insertion, 25 cents per line, agents. Contract rates furnished on application.
5. THE FARMER'S ADVOCATE is sent to subscribers until an explicit order is received for its discontinuance. All payments of arrears must be made as required by law.
6. THE LAW IS, that all subscribers to newspapers are held responsible until all arrears are paid, and their paper ordered to be discontinued.
7. REMITTANCES should be made direct to us, either by Money Order or Registered Letter, which will be at our risk. When made otherwise we will not be responsible.
8. THE DATE ON YOUR LABEL shows to what time your subscription is paid.
9. ANONYMOUS communications will receive no attention. In every case the "Full Name and Post-office Address Must be Given."
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11. LETTERS intended for publication should be written on one side of the paper only.
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13. WE INVITE FARMERS to write us on any agricultural topic. We are always pleased to receive practical articles. For such as we consider valuable we will pay ten cents per inch printed matter. Criticisms of Articles, Suggestions How to Improve "The Farmer's Advocate and Home Magazine," Descriptions of New Grains, Roots or Vegetables not generally known, Particulars of Experiments Tried, or Improved Methods of Cultivation, are cash and all welcome. Contributions sent us must not be furnished other papers until after they have appeared in our columns. Rejected matter will be returned on receipt of postage.
14. ALL COMMUNICATIONS in reference to any matter connected with this paper should be addressed as below, and not to any individual connected with the paper.

Address—THE FARMER'S ADVOCATE, or
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keted the smaller the cost per case, basket, crate, box or barrel, as the case may be. Organizations encourage the "get-together" spirit, and no one interested in the business of fruit growing, beekeeping, vegetable growing, or, in fact, any other branch of agriculture in which there is an active association organized can well afford to stand aloof fighting a lone and uphill fight when he could, for a small fee, join forces with the influential association, reap a great benefit therefrom and do his part in fostering and furthering co-operation.

A*Subscription Christmas Box.

The outstanding event in agricultural journalism of the year and of the coming week, will be the issue of the "best ever" Christmas Number of "The Farmer's Advocate and Home Magazine". Its articles and illustrations will be representative of the most finished work of writers and artists of the first rank. Unlike other publications no extra charge is made for this remarkable number, though worth at least one third the entire year's regular subscription price of \$1.50. A copy will also be sent together with all the remaining numbers of the present year, to new subscribers.

As a Special Christmas Box to all readers whose subscriptions are paid up to the end of 1913, we will accept \$2.25 any time from now till Dec. 31st, 1913, in payment of your own renewal and one new subscription to Dec. 31st, 1914. Among your neighbors and friends there is someone who would value highly "The Farmer's Advocate", if brought to his notice. Let him know what a benefit it is to you and your family every week in the year. You can safely say that its actual cost to produce amounts to double the \$1.50 subscription price for which he secures the 52 copies of the year, and which will furnish more sound, practical reading matter for the farm and home than any other three agricultural publications combined.

Remember this offer is open only to Dec. 31st, so speak to your friend or neighbor personally or over the rural telephone, before he might inadvertently order another paper. Obtain the subscription, at once so that the new subscriber will receive the larger number of this year's copies, inclusive of the Christmas number with which we are sure all will be delighted. To take advantage of the foregoing offer the old subscriber must of course send a bona fide new name. You cannot do yourself and your friend a better turn than this in the closing month of the good old year.

The Lesson of the Arena.

The urban dweller busy with city business, trades and professions goes to a live-stock exhibition to see and admire. He does not hope to become intimately acquainted with the characteristics of different classes and different breeds, but live stock appeals to him, he enjoys looking at it, and he spends the day at the exhibition in much the same spirit as a young man from a remote country district seeing the sights of a large city. He has a good time; he takes pleasure out of everything he sees. Temporary delight may be all he, at the time, expects, but few things he sees are not educative; it adds to his knowledge of things in general, is instructive and valuable.

The stockman, the expert agriculturist goes to a live-stock exhibition to make a critical survey of the animals on exhibition. He knows a good one at sight; he has had experience; yet there are things for him to learn. He must be ever on the alert for new developments in type and conformation; he must know what the best judges demand in an animal. Therefore, he must see the stock together.

The young man from the farm attends a live-stock exhibition to gain more knowledge of his chosen profession. He wants to see every animal of the breed in which he is interested to advantage. He must, to get out of the show what there is in it for him, be able to see the animals lined up and placed so that by comparison the good and their inferior points are plainly brought before him as an object lesson.

All classes go to the live-stock exhibition to see the stock to advantage. There is only one satisfactory place to do this, and that is in the judging ring. Animals cannot be studied, critically and comparatively in the stalls. It is the judging in the ring that educates where a competent judge makes the awards. A casual glance at the stock is not enough for the twentieth century visitor to an exhibition of live-stock. The prime need of live-stock exhibitions is to encourage the breeders to produce more good stock, and to educate them to accomplish this. The first requisite of such a show is then a large arena where the judging is done in full view of all the spectators interested. The public demands such equipment, and it must come. Exhibition managements now see the need of it, and it is to be hoped that every large stock show in the country may, in the near future, be noted for the accommodation provided for seeing the educative feature of the show—the judging.

The Coming Issue of Issues.

It is not an easy task each year to gather a class of material for our annual Christmas Number of such a high order as to eclipse all former issues, but we feel that our readers, when they have carefully read and analyzed next week's "Farmer's Advocate and Home Magazine," will agree with us that the standard has been again set one long notch higher. It will be replete from cover to cover with good things.

The front cover in colors is a Canadian winter scene, prepared by an artist of note, and must be seen to be appreciated. The reading matter is all prepared by the best writers obtainable on matters of interest to all those who enjoy farm life. The studious reader will find the editorial article on The Book of Books and the Farm something entirely new and original in treatment. Of a reminiscent nature is an account by Dr. J. G. Rutherford of farming experiences in Scotland forty years ago. Horsemen will enjoy "Whip's" foreshadowing of the future of the horse, and an excellent history of Percherons in America by Wayne Dinsmore. The lover of good cattle will read with interest how the Aberdeen-Angus has been developed in Scotland—a historic sketch by James R. Barclay. Sheepmen Canada over will be interested in the decline and redevelopment of our sheep industry, by T. R. Arkell. The bacon hog has his innings this year in an excellent article by E. C. Fox. "There is nothing too good for the Irish" and sons of the Emerald Isle, and all admirers of Irish character and achievement will peruse with pride and pleasure a revealing article by Chauncey G. Jarvis. A resume of the agricultural year in Canada, by J. H. Grisdale, is instructive. Dairymen will digest every word of Prof. H. H. Dean's article on "The Outlook for Canadian Cheesemaking." The greatest poultry investigator in the United States, Dr. Raymond Pearl, discusses how to breed hens that will lay. Canada's agriculture is covered from ocean to ocean. In keeping with

the front cover an excellent article on the utility and beauty of snow has been prepared by A. B. Klugh. New Ontario is not forgotten—C. A. Galbraith tells of its advantages; and to cap it all the Home Department will be stronger than ever, with articles of interest in the home. Girls and Efficiency is the topic discussed by Alice Blythe Wilcox. Birds, The Farmer and His Wife, by Mrs. Mabel Osgood Wright, President of the Audubon Society of New York State is another feature, and Peter McArthur has prepared a Christmas Talk which all should read. All this excellent literature, illustrated and interspersed with the best-finished work of the highest-priced cameras and reproductions of masterpieces in painting by several of the most eminent of modern artists; make this one the issue of all Christmas issues.

Nature's Diary.

By A. B. Klugh, M. A.

Of all the phases of botany there is none of greater importance to those who follow agriculture or horticulture, than that which deals with the life processes of plants, and which is termed plant physiology.

Before we can understand anything about plant physiology it is necessary to know a little about the substances which are concerned in the life processes of the plant, and this leads us a little way into the subject of chemistry. All substances belong to one of two classes, they are either elements or compounds. By an element we mean a substance which cannot be reduced any further. Such a substance is iron, we can



Fig. 1—Portion of epidermal leaf showing stomata highly magnified.



Fig. 2—Cross section through a stoma highly magnified.

treat it in any way we like, but we cannot make it into anything simpler. We can, on the other hand, build elements up into compounds. Thus we bring together the elements sodium and chlorine we have sodium chloride, common salt. We burn carbon, it unites with the oxygen of the air and we have the gas, carbon dioxide, in which one atom of carbon has united with two atoms of oxygen. Water is a compound of the elements hydrogen and oxygen.

The most important elements which are used in the life processes of plants are carbon, hydrogen, oxygen, nitrogen, sulphur, iron and potassium. These are all necessary to the life and growth of the plant and if any of them are wanting in the water, air or soil from which the plant derives its nourishment, death from starvation will follow. There are other elements which are made use of by plants, but as life may be prolonged without them, they are regarded as of secondary importance.

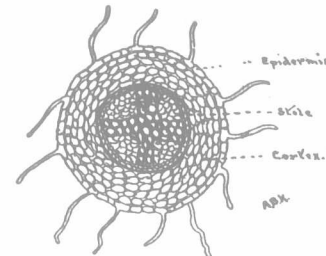


Fig. 3—Cross section of rootlet showing root veins, highly magnified.

Of these elements the oxygen and carbon are derived from the air, the hydrogen from water in the soil, and the rest from the salts of the soil.

The first life process which we shall consider will be the way in which they secure their food. Plants differ from animals, in being able to use raw materials and from these to build up their food. The leaves take in the carbon dioxide from the air. This gas enters through minute openings in the leaves called stomata, which are found on both surfaces of many leaves, on the lower surface only of others, while in such floating leaves as those of water-lilies, they occur only on the upper surface. So small are these stomata that there are about 24,000 of them to the square inch in an apple leaf, and about 300,000 to the square inch in a black walnut leaf. The structure of the stomata is shown in Figures 1 and 2. The "guard cells," which enclose the opening, control the size of the aperture.

If we take up a small root with some earth attached to it, carefully wash away the soil, and examine it with a hand-lens we shall see, just behind the growing point, an area covered with fine hairs. It is these hairs which absorb the water from the soil, and they are really extensions of some of the outer cells of the root, as

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is shown in Figure 3. The root-hairs take up water by a process known as osmosis. To understand something about osmosis we shall have to perform a little experiment. Take a little bottle, fill it to the top with a solution of sugar and tie a piece of the inner membrane of an egg tightly over the mouth. Place the bottle at the bottom of a basin of water and leave it there for a few hours. When we take it out of the basin we shall see that the membrane is bulged outward. Why? Because the sugar solution has "attracted" water through the membrane, thus adding to the volume of fluid within the bottle. Now, inside the root-hair is a solution of salts stronger than that in the soil, and consequently the water, with some salts dissolved in it, is drawn in through the cell-wall of the root-hair. The water then passes into the root, up the vessels of the root and the vessels of the stem to the leaves.

In the cells of the leaf is a substance known as chlorophyll, which gives leaves their green color. The chlorophyll, by the aid of light, is able to combine the carbon dioxide taken in from the air with the water sent up from the roots to form starch, which is the main plant food. The chlorophyll appears to act by intercepting a considerable portion of the light rays which strike the leaf, thus compelling them to expend their energy. If light traverses a substance with great ease, as it does pure air, for example, comparatively little effect is produced. On the other hand, when it strikes a substance which readily absorbs it, heating or chemical effects are produced. This work of chlorophyll is called photosynthesis, from two Greek words meaning "light" and "building up," and in this process only the carbon of the carbon dioxide is used, the oxygen being returned to the air through the stomata. The plants and animals are complementary to one another as far as the gasses of the air are concerned, the plants giving off more oxygen than they use up, and the animals using up oxygen and giving off carbon dioxide from their lungs.

Plants use up some oxygen, for they respire just as truly as animals do, and as in animals the oxygen burns up compounds in their cells, thus producing energy.

Some idea of the rate of starch formation in plants can be obtained from the fact that in a summer day, fifteen hours long, a squash plant manufactures three-quarters of an ounce of starch for every square yard of leaf-surface. A full-grown squash leaf has an area of about one and one-eighth square feet, and a plant may bear as many as a hundred of them. The entire plant would then produce nearly nine and a half ounces of starch per day.

The Concern of Government.

The cost of living is not so much inflated food prices as inflated living generally, in the cities and towns. People would do well to remember, as The Mail and Empire, of Toronto, recently stated, that in so far as the cost of foods is a factor, the situation is the result of long-growing conditions not to be altered in a day or year. Apart from remedies which the people can themselves apply, a fundamental remedy lies in the restoration of agriculture to a higher public favor. There has been an undue and almost world-wide industrial expansion. To make conditions favorable to the pursuit of agriculture, the foundation of all industry, on its business side as well as its practice, should now be the particular concern of governments.

Giving trustworthy information from every available source on the practice and business of farming and undeviating advocacy of the rights and interests of its readers, is the policy of "The Farmer's Advocate and Home Magazine." By its continuance we count on your loyal support for 1914.

When the signers of the Declaration of American Independence, were affixing their names to that historic document, one of the leaders observed to the rest: "Unless we all hang together we shall all hang separately," words that might not inappropriately be re-affirmed by farmers, horticulturists and dairymen in relation to their business to-day.

Couldn't do Without It.

"The Farmer's Advocate" is one of the best papers printed, and we have taken it for nearly twenty years, and we could not get along very well without your valuable paper and home magazine.

Huron Co., Ont.

JOHN YOUNG.

A Farmer's Politics.

Editor "The Farmer's Advocate":

The other day I wrote an article for "The Farmer's Advocate" which tries to steer clear of politics. It was not a political article, but it touched upon some Canadian economics as they affect the public in general, and the farmer in particular. It contained a couple of mild jibes for the government. The editor wrote me that he was pleased with the screed, but that, "seeing that several bye-elections are on at the present time, and in many sections where our paper is read political battles are being waged, and remembering also that our paper has as many readers leaning to one side of politics as to the other, we were obliged to go through the article and in places tore down a few statements which might be taken up by some of our readers as altogether too strongly favoring one side of politics. However, in cutting out the names of political leaders we do not in any way detract from the force and weight of the article. You can readily understand that it would not do for an independent paper like 'The Farmer's Advocate' to publish anything favoring too strongly of politics."

Here is a text to set us farmers thinking, to see if we can't revise our attitude towards political parties. It was really a sad commentary on our narrowness that the editor should have felt compelled by his readers to cut out the names of the party leaders lest some of us take offence. Are we so small that we can't see the party leader we happen to favor criticized without taking offence and sulking like big boobies? Is there one of our number who would act so much like thirty cents as to write an editor and cut off our subscription, for instance, because his paper contained a mild, timely criticism of the party we happen to favor? The editor's letter says yes, and he knows.

What is politics anyway? Annandale describes it as "the science of government; that part of Ethics which relates to the regulation and government of a nation or state for the preservation of its safety, peace and prosperity."

As I look at it, my vote is a family affair, just as paying taxes is a family affair. If the duty on woollen goods were abolished, for instance, and clothes become twenty per cent. cheaper, my family would either buy more clothes or other good things with that twenty per cent. The little ones who go to school in the cold weather are therefore just as much interested as their father is in the tariff made at Ottawa, and just as much as they are in the prices father gets for the produce he sells.

In our anxiety to stick up for one of the party leaders and to swat anybody who ventures to criticize him, even when our fairmindedness and commonsense tells us he merits it, we lose sight of the home, where politics should begin. Too many of us look on politics as a "game" in which two sides set out at election times to win, honorably if possible, but win anyhow. We view the "game" through a mental spy-glass as being played in a very big way by very big men in a very big arena at Ottawa. We forget the little children at the fireside, whose comfort and happiness is apt to depend on the wisdom of father's decision when he marks his ballot. If we gave some sober, careful thought to the home side of politics and thought less of

it as a "game" to become excited and rattle-headed over, graft and corruption and "pull with the government" would soon cease and this Canada of ours would be a better place to live in. And furthermore, editors would not be obliged to cut out the names of party leaders from their contributors' articles, because we should all be discussing the business of the country, "the science of government," calmly and serenely on their merits, with a single eye to "the preservation of the country's safety, peace and prosperity." We should forget the foolish superstition which has crazed so many of us—that one party is always right and the other always wrong, a condition which is as impossible as it is absurd.

People are talking about women in public life, votes for women and that sort of thing. Why? Because we are beginning to see that, as laws are made by elected politicians, and as they affect women and children, so women have a mighty big interest in every process by which the laws are made.

Every man who has girls going out into the world knows the dangers that surround them from scoundrels on the lookout for prey. He therefore wants the laws which protect his daughters to be made very strict. If the father feels that way, how much more so does the mother feel? She hasn't a vote, but she has as much interest in her husband's politics as she has in his daughter. These are the politics that begin at home; it is a family affair, and if you think of it in the right way, you will realize that the state is only the family multiplied and magnified, and you will come to feel that your vote is a sacred thing which you cannot afford to gamble with by "backing favorites" on election days, simply because you backed the same party on former occasions, or because father and grandfather voted the same ticket. There is no ring of progress in, "A Conservative (or Liberal) I was born and a Conservative (or Liberal) I'll die!"

We farmers need to take fresh stock of what political parties and partyism stand for, not because of any objections to party government, but because it is time for a change in our attitude towards politics, "the preservation of the country's safety, peace and prosperity." We should cease thinking of it as the "game" of politics. The safety, peace and prosperity of the home is too much wrapped up with the mark put on that scrap of paper which we deposit in the ballot-box for the important act to be called a "game." We call this the Age of Progress, as it surely is when we see Niagara Falls milking the cows in a stable a hundred miles away. Still many of us are not yet too wise to worship a party name and vote for that party through right and wrong.

I know a man who before the general election of 1896 worked with might and main, as well as with his pen, to upset the Government then in power at Ottawa because he had sufficient evidence that, as he put it, they were "rotten." And at the next general election he worked against the new Government because they didn't measure up to pre-election promises, "free trade as they have it in England," and so on. Their leader, he said, had fooled the people; he had got them to vote him into power and then simply donned the clothes of his opponents formerly in power. In 1911 he still worked against



The Reward for Hard Work.

the Liberal leader because he didn't like the reciprocity pact, not on the economic side, but because of the avowed desire of American statesmen to prevent by reciprocity a complete union of the Britannic nations. And now this man is not any too well pleased with the present Government. He doesn't like the way the navy question has been handled, and was disappointed at the way the Banking Act was put through last year, with no advancement in the interests of the public. And if another general election comes along there's no knowing where this man may find himself on ballot day.

Now, I am that man, and if I had my time to go over again I would take the very same course, because I believe it is the only course an open-minded man should take. I don't hold myself up as a model, but your hide-bound party man will no doubt think I'm in a muddle.

Well, as the old lady replied when the doctor asked if she was better, "I am and I ain't." Amid all the playing for the retention or winning of office that has been going on at Ottawa since November, 1911, I confess to being somewhat puzzled. But by the time the next general election comes round, when the wheat has all been sifted from the "chaff," which is a good name for much of what passes currency as statesmanship, I shall no doubt know where to find myself and how to mark a ballot slip.

Now, what would happen if every voter were to get into a similar "muddle"? Simply this, my dear fellow farmers: One government would get hoisted out of office so quickly after another that they too would get in a "muddle." They would soon take stock of themselves and we should presently have a Woodrow-Wilsoned Government, elected on a platform of real reforms and progress, and intent on carrying them out.

But as long as the people are indifferent, and ready to follow the bell-wether to the polling booth, whooping it up like grandpa, professional politicians will be indifferent too, and we shall get indifferent legislation.

Happily there is a widening discussion of party weaknesses. A few years ago nobody was bold enough to discuss the subject in open meeting. Now even the partizan newspapers are uttering much truth and soberness. The sense of the country appears to be that both political parties need to be horn again. Newspapers may exhort, the leaders may look with saddened longing for a new birth; but real progress must begin with the individual voter. Which, being interpreted, means you, John Smith, and me,

W. L. MARTIN.

Northumberland Co., Ontario.

THE HORSE.

Good Swede turnips are relished by horses. One good-sized one a day is enough.

If the horse's roughage ration is to be straw, he must be liberally fed on concentrates.

The good horseman looks for the right kind of feet and legs as well as size and substance in a horse.

The horse still remains the greatest drawing card at a live-stock show, notwithstanding the popularity of the automobile.

Timothy hay sells at the highest price on the market, but clean, well-cured clover makes good winter feed for the farm horses.

Buy a little bran; it is a good investment where colts and in-foal mares are being wintered, and, in fact, may be used to advantage with most idle horses.

In every district where there is not already a good stallion, if some one man does not make the purchase of one, a few prominent men should get together and buy the best horse available.

Some mares abort each year as a result of an accident. A box stall or stable door left swinging open may blow shut on her as she is going through, and the harder she tries to get through the tighter she is squeezed. This may cause her to "slip" her foetus. Keep the doors fastened.

The brood mare must have exercise, but some care is necessary that she is not injured in the yard or paddock. Turning her out with one or more playful colts is sometimes disastrous. Colts kick in play and may injure the mare, clumsy because of carrying a developing foetus and unable to get out of the way, and the injury may result in an abortion.

The New York Horse Show.

Canadian horses again pranced themselves into fame and money at the annual New York Horse Show, Madison Square Gardens. Hon. Clifford Sifton's "Cleveland" took the blue ribbon, being first in a class of qualified hunters. In the contest for sets of qualified hunters, Mr. Sifton's trio, Elmhurst, Ranello and Sunday Morning, took the blue ribbon. On the second day, the Sifton entries were winners in the class for hunters or jumpers over four successive jumps of five feet. J. W. Sifton's Mayfair won the blue and W. B. Sifton's Skyscraper took fourth prize. On the third day, in the contest for pairs of jumpers going over the hurdles abreast, Sarah Moore and Billy, the entry of Capt. Rodden, of Montreal, took the blue ribbon, beating the Sifton entry, Wasp and Elmhurst. The challenge cup for best Hackney at the show went to Aquinus, of the Auburn Farm. He won a similar honor in 1911. Miss E. Viau, of Montreal, won the Waldorf-Astoria challenge cup for best half-bred Hackney with her gelding, Earl Grey, driven by A. Yeager, Simcoe, Ont. She took several awards also in harness horse classes. The Sifton entry, Cleveland, won in the class for qualified hunters ridden by qualified hunt-club members, J. W. Sifton riding. In the pony class, Master and Masterpiece, exhibited by Major C. W. MacLean, Brockville, Ont., won the blue ribbon in harness class, and in the class for ponies not exceeding thirteen hands two inches, Masterpiece took the blue and Master the red honors.

On the closing day, Hon. Clifford Sifton's Ranello was adjudged best heavy-weight hunter and Major W. T. Rodden's Outlook, reserve. Sifton's Cleveland got championship in the light-weight hunter class, and in middle-weight hunters, Sunday Morning took second, and also first in qualified hunters up to carrying 180 pounds to hounds, Willow King second, and Elmhurst third. C. W. MacLean took championship cup for pony in harness. With four entries Major MacLean captured four blues and one championship. In qualified hunters through the pen jump, W. T. Rodden's Sarah Moore took the yellow ribbon. The spectacular event of the day was the challenge cup coach race, four-in-hand, seven miles, in 36½ minutes, won by Emil Seelig. The greatest winner of the show was Judge Wm. H. Moore, whose entries took 30 ribbons, including 17 blues and five championships.

United Horse Breeding.

Horses are no longer the only power for farm work and city draying. Gasolene and electricity are daily replacing the horse as the horse has replaced the old-fashioned ox-team of pioneer days. With the advent of motor power comes a falling off in the demand for horses, but withal the prices still remain firm, only the demand is slower. With this new condition arising, breeders are forced to produce high-quality animals, because they can be disposed of any time at fancy prices.

The farmer or breeder cannot always select the mare, for he usually has the female, but the sire must be chosen to mate each time. Here is the breeder's opportunity and here often the breeder falls down. Unless he is experienced and a good judge of horses, the stallion in the community, fat and sleek, will look good to him. If placed beside another horse, the difference in conformation, quality and action will be at once apparent. A horse-raising district has a decided advantage over a community where interest does not center around any one particular line of live stock. Buyers will go where the stock may be found in quantities, and in Ontario there are districts known as horse communities. In order that the farmers might have the use of the very best sires, instead of being influenced by flesh and shiny coat, a small horsemen's league might be formed in a district with enough members to afford the purchase of a good stallion, or better still, pledge their patronage to an individual member who would purchase a horse up to their standard and insure him a profitable fee. This system would standardize the type of animal and the one horse would better suit the community after the system had been in vogue for a few years than it did at first. Live-stock shows afford splendid opportunities to study strains and families of horse breeds, and there delegates might decide on a horse or character of a horse to suit the members of the league. Community breeding gives a place a name and a decided advantage over unorganized and individual efforts.

LIVE STOCK.

The New National Exhibition at Toronto.

(Continued from last week.)

BEEF CATTLE.

SHORTHORNS.—Visitors to the National Live Stock and Dairy Show were not disappointed in the beef-cattle classes. One is well within bounds to say that Toronto never saw within her limits such a uniformly good lot of Shorthorns and the prize winners have never been excelled at any Canadian show. The senior classes were tolerably well filled, but the individuals were all first-class quality. In the junior classes more came out, and it was a pleasant sight to see a long line, progenies of the old English and Scotch stock, competing for the coveted ribbons. Although the aged-bull class did not call out the best material, it was interesting, for in it was Missie Marquis, Smith & Son's great show bull, who at Toronto and Ottawa this fall was grand champion of the breed. He could not stand up, however, against Sultan Stamp or Craigallachie and Gay Monarch. Missie Marquis has gone off bloom since the fall shows and more particularly does he show this along the back and top line. The telling strain of shows and fitting forced him into fourth place, but he has a past which comes only to the very best. Among the two-year-olds came Gloster Fashion and Right Sort. Peter White, of Ottawa, had no harder task in all the beef breeds than to decide between these two great bulls. Right Sort was a good one, with a stronger back and better head and face, and perhaps showing a tendency to more ruggedness throughout than Gloster Fashion, but the latter bull was so blocky in type, so straight in his lines, so low set and so smooth throughout with even flesh and quality that at last he won the day and became senior and grand champion of the breed. In the senior yearlings, Wawalton Renown beat Meadow Signet for first place and later landed the junior championship. He is a large, white bull for his age, but has few superior points to Meadow Signet. The decision could easily have been reversed in this class. Eight two-year-old heifers came forward and Maxwalton Musin struggled into premier place. Jealousy 4th came second, with Crystabel third. The winner had her winning points in her strong breast, girth and general quality, while the second had a greater spring of rib. The largest class was thirteen senior heifer calves, with Augusta 112 standing first and Maxwalton Foxglove, a red heifer with good constitution but a little up-standing, second. Silver Queen had the form and flesh to win, but she is a little hard to the touch, and went third. Exhibitors.—Mitchell Bros., Burlington; Kerr & Davidson, Balsam; Frank W. Smith & Son, Scotland, Ont.; Jas. Leask & Son, Greenbank; Carpenter & Ross, Mansfield; Anoka Farms, Waukesha; John Gardhouse & Sons, Highfield; A. F. & G. Auld, Eden Mills; F. A. Watt, Elora; Geo. Amos & Sons, Moffatt; E. Brien & Sons, Ridgetown; Robert Miller, Stouffville; D. A. Graham, Wyoming; Pritchard Bros., Fergus; Geo. Gier & Son, Waldemar; Kyle Bros., Drumbo; Wm. C. Wilson & Son, Hawkestone. Awards.—Bull, three years and over: 1, Carpenter & Ross, on Craigallachie, by the Choice of All; 2, Anoka Farms, on Sultan Stamp, by Whitehall Sultan; 3, Kerr & Davidson, on Gay Monarch, by Gold Sultan; 4, Frank Smith & Son, on Missie Marquis, by Clipper Marquis; 5, Mitchell Bros., on Raphael, by Bonnie Charles. Two-year-old bull: 1, Anoka Farms, on Gloster Fashion, by Leader of Fashion; 2, Mitchell Bros., on Right Sort, by Red Rosewood; 3, John Gardhouse, on Lavender Sultan, by Superb Sultan; 4, F. A. Watt, on Gainford Victory, by Gainford Pride 2nd; 5, A. F. & G. Auld, on Broadhooks Ringleader, by Newton Ringleader. Senior yearling bull: 1, Carpenter & Ross, on Wawalton Renown, by Avondale; 2, Geo. Amos & Sons, on Meadow Signet, by Scottish Signet; 3, E. Brien & Sons, on Sea Foam, by Trout Creek Wonder; 4, D. A. Graham, on Bobby Burns, by Royal Archer. Junior yearling bull: 1, Mitchell Bros., on Nero of Cluny, by Edgar of Cluny; 2, Robert Miller, on Longfellow, by Upper Mill Omega; 3, Carpenter & Ross, on Come-in-Time, by The Gallant; 4, F. A. Watt, on Clan Alpine, by Proud Monarch. Senior bull calf: 1, Geo. Gier & Son, on Matchless Hero, by Mildred's Royal; 2, Anoka Farms, on Royal Silver, by Mute Sultan; 3, A. F. & G. Auld, on Bandsman Commander, by Bandsman; 4, James Leask & Sons, on Flower King, by Orange Ember. Junior bull calf: 1, Kerr & Davidson, on Sittyton Favorite, by Gay Monarch; 2, F. A. Watt, on Gainford Perfection, by Gainford Marquis; 3, Anoka Farms, on Lone Star, by Prince Coral; 4, Kyle Bros., on Judge, by Scottish Pride; 5, Mitchell Bros., on Cranright, by Right Sort. Cow, three years and over: 1, Mitchell Bros., on Queen Mildred, by St. Augustine; 2, Carpenter

& Ross, dale; 3, Choice; by Whit Blossom penter dale. Maxwal on Jeal Bros., 5, Carp Maxwal lage I Carpent Avonda Sultan ton Ro on Duc yearling Flower. Nonpar penter Avonda 4, F. A arch. August on Ma F. A. quia, a A. F. Broad Carper Avond Prince Scotch on An herd: 3, Mit Senior on G Carpe and G Maxw Carpe HE ous th up to were much Ho tiona large, stone cham fine l class, Al Fairf and r Cl ner creat won Page Mrs. Read A by E by 31st, Mrs. Brae Bull 62nd Secr Bon on Hun Sni Brae by 1 26th 17th Ros leaf Heif Ingt on l on seni by Ing Hun Hei Fai 10t Juc by call 2, on Hu Cli 3rd Pa 3, for on pic che

& Ross, on Maxwalton Gloster 3rd, by Avondale; 3, Robt. Miller, on Princess 3rd, by Gloster's Choice; 4, Anoka Farms, on Winsome Sultan, by Whitehall Sultan; 5, John Gardhouse, on Blossoms Lady, by Prince of Archers; 6, Carpenter & Ross, on Maxwalton Gloster, by Avondale. Two-year-old heifer: 1, Anoka Farms, on Maxwalton Musin, by Avondale; 2, F. A. Watt, on Jealousy, by Newton Ringleader; 3, Mitchell Bros., on Crystabel, by Newton Crystal; 4 and 5, Carpenter & Ross, on Cloverleaf Mildred, by Maxwalton Sultan, and Ramsden Queen, by Village Bridegroom. Senior yearling heifer: 1, Carpenter & Ross, on Maxwalton Rosebud, by Avondale; 2, Anoka Farms, on Fancy Mine, by Sultan Mine; 3, Carpenter & Ross, on Maxwalton Roan Lady, by Avondale; 4, Anoka Farms, on Duchess Gloster, by Sultan Mine. Junior yearling heifer: 1, Anoka Farms, on Village Flower, by Villager; 2, A. F. & G. Auld, on Nonpareil, by Bridbrae Sultan; 3 and 5, Carpenter & Ross, on Maxwalton Gloster 5th, by Avondale, and Maxwalton Queen, by Avondale; 4, F. A. Watt, on Heather Belle, by Proud Monarch. Senior heifer calf: 1, Anoka Farms, on Augusta, by Fond Memory; 2, Carpenter & Ross, on Maxwalton Foxglove, by Avondale; 3 and 5, F. A. Watt, on Silver Queen, by Gainford Marquis, and Duchess 50th, by Gainford Marquis; 4, A. F. & G. Auld, on Lancaster Princess, by Broadhook's Ringleader. Junior heifer calf: 1, Carpenter & Ross, on Maxwalton Jubilee, by Avondale; 2, Kerr & Davidson, on Sittyton Princess, by Gay Monarch; 3, Mitchell Bros., on Scotch Beauty, by Right Sort; 4, Anoka Farms, on Anoka Clipper, by Sultan Stamp. Graded herd: 1, Anoka Farms; 2, Carpenter & Ross; 3, Mitchell Bros.; 4, John Gardhouse; 5, Auld. Senior and grand champion bull: Anoka Farms, on Gloster Fashion. Junior champion bull: Carpenter & Ross, on Wawalton Renown. Senior and grand champion cow: Anoka Farms, on Maxwalton Musin. Junior champion female: Carpenter & Ross, on Maxwalton Roan Lady.

HEREFORDS.—White faces were more numerous than the Angus, but they could not measure up to the Shorthorns in numbers. Five and six were out in some classes, but the average ran much lower.

Bonnie Brae 21st, a winner at the Canadian National, came out in the aged bulls. He is a large, even-fleshed bull, but Refiner, by Blackstone, carried away the red ribbon, and later the championship for his breed. They are a pair of fine bulls, with Bonnie Brae 31st in the same class, but third.

All the junior bull calves stood below Lord Fairfax. He is a promising youngster, thrifty and smooth.

Clifford's Miss Brae 26th was again the winner of the aged cow class. She is a massive creature, smooth and evenly turned, and easily won from Rubella 17th of Ingleside. Rosalie was third, and Roseleaf 8th, of Ingleside, fourth.

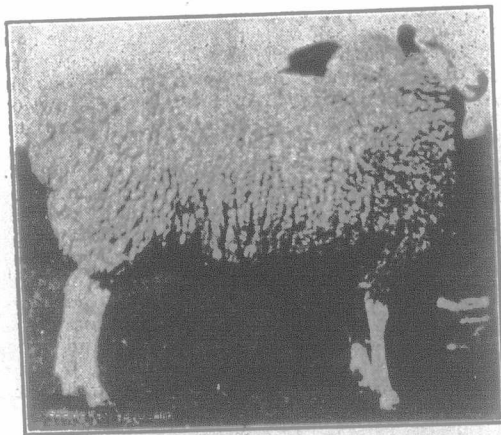
Exhibitors.—L. O. Clifford, Oshawa; James Page, Tyrconnell; H. Dudley Smith, Hamilton; Mrs. W. B. Hunter & Son, The Maples; Henry Reed, Mimosa.

Awards.—Aged bulls: 1, Clifford, on Refiner, by Blackstone; 2, Smith, on Bonnie Brae 21st, by Bonnie Brae 3rd; 3, Page, on Bonnie Brae 31st, by Bonnie Brae 3rd. Yearling bull: 1, Mrs. Hunter, on Bonnie Brae 49th, by Bonnie Brae 3rd; 2, Smith, on Brae Ingleside 2nd. Bull, senior calf: 1, Clifford, on Bonnie Brae 62nd; 2, Mrs. Hunter, on Roxie's Laddie, by Secret Lad; 3, Clifford, on Bonnie Lad 5th, by Bonnie Brae 35th. Bull, junior calf: 1, Clifford, on Lord Fairfax, by Perfection Fairfax; 2, Mrs. Hunter, on Commander 2nd, by Bonnie Smith, on Rosemark Ingleside 38th, by Bonnie Brae; 4, Clifford; 5, Page, on Brae Real 2nd, by Bonnie Brae 31st. Aged cow: 1, Miss Brae 26th, by Bonnie Brae 3rd; 2, Smith, on Rubella 17th of Ingleside, by Forest Pride; 3, Page, on Rosalie, by King Edward; 4, Smith, on Roseleaf 8th of Ingleside, by Boston Ingleside. Heifer two years old: 1, Smith, on Rubella Ingleside 23rd, by Duxmore Ingleside; 2, Clifford, on Miss Brae 34th, by Bonnie Brae 15th; 3, Page, on Miss Dale, by Clover Leaf Dale 6th. Heifer, senior yearling: 1, Clifford, on Miss Brae 40th, by Bonnie Brae 32nd; 2, Smith, on Rubella Ingleside 33rd, by Bonnie Brae 21st; 3, Mrs. Hunter, on Brenda 11th, by Newton Lad (imp.). Heifer, junior yearling: 1, Clifford, on Flute Fairfax, by Perfection Fairfax; 2, Lady Blanche Fairfax, by Bonnie Brae 31st; 3, Page, on Miss 10th, by Bonnie Brae 31st; 4, Reed, on Olivet Lass, by Sir Mark of Ingleside 2nd. Heifer, senior calf: 1, Clifford, on May Queen 5th, by Refiner; 2, Smith, on Laura 35th, by Refiner; 3, Page, on Miss Brae 50th, by Bonnie Brae 3rd; 4, Mrs. Hunter, on Nancy Casol, by Tippecanoe; 5, Clifford, on Miss Princess 42nd, by Bonnie Brae 3rd. Graded herd: 1, Clifford; 2, Mrs. Hunter; 3, Page. Junior herd: 1, Clifford; 2, Mrs. Hunter; 3, Page. Senior and grand champion bull, Clifford, on Refiner; junior champion bull, Clifford, on Bonnie Brae 62nd; senior and grand champion female, Clifford, on Miss Brae 26th; junior champion female, Clifford, on Flute Fairfax.

ABERDEEN-ANGUS.—Three exhibitors led out at this event, but the closest battles were between Bowman and Lowe. The stock was in good showing condition, and they show themselves to be a commendable beef type. Once crossed with the Shorthorn they give a steer that is usually grand champion, and their smoothness of body and depth and evenness of fleshing, make them worthy of a high place in the live-stock industry.

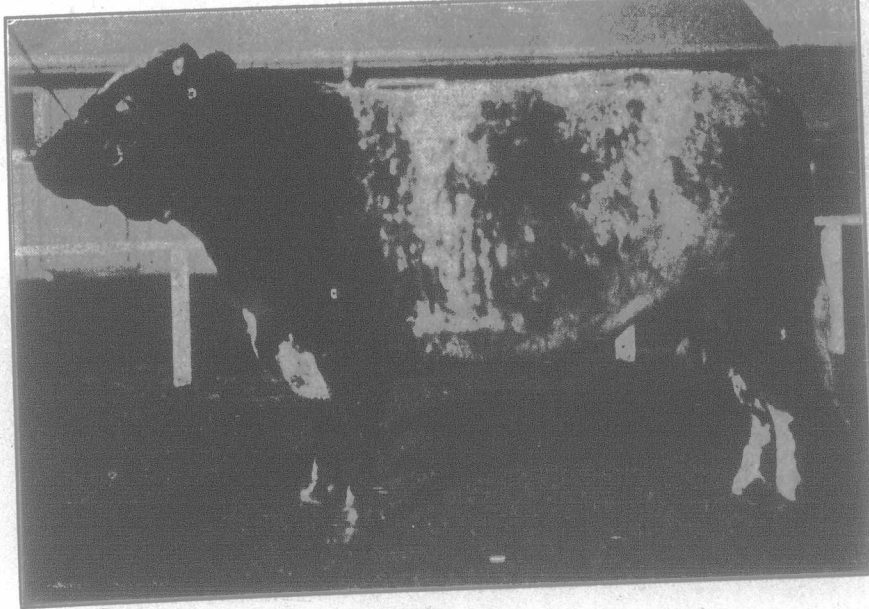
Exhibitors.—Jas. Bowman, Guelph; John Lowe, Elora; Thos. B. Broadfoot, Fergus.

Awards.—Aged bull: 1, Bowman, on Elm Park Wizard, by Elm Park Ringleader; 2, Bowman, on Beauty Prince, by Prince of Benton. Two-year-old bull: 1, Bowman, on Young Leroy, by Leroy 3rd of Meadow Brook. Yearling bull: 1, Bowman, on Beauty's Erwin, by Erwin C.; 2, Lowe, on Black Abbott Prince, by Prince Bravo. Bull calf: 1, Lowe, on Middlebrook Prince, by Balmedia Proud Boy; 2, Bowman, on E. P. Kaiser 2nd, by E. P. Wizard; 3, Bowman, on E. P. Wizard 3rd, by Beauty's Prince; 4, Broad-



A Leicester Champion of 1913. Owned by Jas. Snell & Son, Clinton, Ont.

foot, on Balmedia Keepsake's Elmar 2nd, by Proud Elmar 2nd. Aged cow: 1, Bowman, on E. P. Beauty 3rd, by E. P. Kaiser; 2, Bowman, on E. P. Rosebud, by Lord Val 2nd; 3, Broadfoot, on Balmedia Lady Violet 2nd, by Elm Park Ringleader. Heifer, two years old: 1, 2 and 3, Bowman, on E. P. Pride, by Magnificent; E. P. Beauty, by E. P. Ringleader 3rd, and E. P. Witch, by E. P. Ringleader. Heifer, one year old: 1 and 4, Bowman, on E. P. Keepsake, by E. P. Wizard, and E. P. Rosebud, by E. P. Mark; 2 and 3, Broadfoot, on Balmedia Queen Violet, by Proud Elmar 2nd, and Balmedia Mays, by Proud Elmar 2nd. Heifer calf: 1 and 3, Bowman, on E. P. Pride, by Magnificent, and E. P. Rosebud, by E. P. Wizard; 2 and 4, Lowe, on Middlebrook Pride 10th, by Balmedia Proud Boy, and Middlebrook Pride 9th, by Balmedia Proud



Gloster Fashion. Senior and grand champion Shorthorn bull at the New National Show in Toronto last month. Owned by Anoka Farms, Waukesha, Wis.

Boy. Graded herd: 1 and 2, Bowman. Senior and grand champion bull, Bowman, on Elm Park Wizard. Junior champion bull, Bowman, on Beauty's Erwin. Senior champion female, Bowman, on E. P. Beauty 3rd. Junior and grand champion female, E. P. Rosebud.

GALLOWAYS.—This breed was represented by only one exhibitor. In a natural park these animals might have been interesting, but in a live-stock show, where no skill or trouble is spared to fit the individuals and have them in ideal condition, as a model to breeders and feeders, they were an outstanding incongruity. Hav-

ing no competition it was not necessary to keep them in show condition or lead them into the ring. If the breed does not gather round it patrons enthusiastic and sincere enough to increase the herds and numbers, it might well be removed from the prize list of our fairs and the money be divided amongst more popular breeds. A fairly liberal prize list was offered, but all the money went to one exhibitor, Col. D. McCrae, Guelph.

SHEEP.

Never before at any Canadian show have so many high-quality individuals come forward. All sheepmen pronounced the exhibit superior to anything they had seen at previous fairs, on account of the inferior animals being absent to a marked degree.

The grand champion wether was found in a shearing owned and brought out by J. & D. J. Campbell, of Woodville, Ont. Two crosses of Shropshires have given this wether a compact, low-down form, and he had been fitted to a finish. J. Lloyd-Jones and Lee, of Highgate, were in the ring with a Southdown and Lincoln wether, respectively, after six others had been discarded.

The champion long wool pen were a sight indeed. The Lincoln breed gets the credit for this victory, and H. Lee, of Highgate, the honor of rearing and exhibiting this high-class pen of long-wool sheep. Sir Walter, a two shearing ram, heads the flock. For quality of fleece, color of skin and general proportions, he is an exceptional sheep. The shearing ewe of the same pen possesses a back that excited comment from all sheepmen near the ring, and, taking this pen with all its individuals of Dodding breeding, they made up an aggregation capable of winning in the very highest company.

The judges in the several classes were: for Cotswolds, Leicesters and Lincolns, Jas. Douglas, Caledonia; Shropshires, Southdown and Dorsets, Geo. McKerrow, Pewaukee, Wis.; Oxford, Hampshires and Suffolks, W. A. Dryden, Brooklin. Champion winners and grades and crosses, W. A. Dryden, and Jas. Douglas.

COTSWOLDS.—Exhibitors.—E. F. Park, Burford; S. Dolson, Norval; E. Brien & Sons, Ridgetown. Awards.—Ram, aged: 1, Brien & Son; 2, Park. Ram, shearing: 1 and 3, Park; 2, Brien. Ram lamb: 1 and 3, Brien; 2, Park; 4, Dolson. Best ram, Brien. Ewe, shearing: 1, Park; 2, 3 and 4, Brien. Ewe lamb: 1 and 2, Park; 3, Brien. Best ewe, Park. Graded pen: 1, Park; 2, Brien. Pen lambs: 1, Dolson; 2, Brien.

LEICESTERS.—Exhibitors.—H. M. Robinson, Erindale; A. & W. Whitelaw, Guelph; David Rodger, Drumbo; J. Kelly, Shakespeare. Awards.—Ram, aged: 1, Whitelaw; 2, Robinson. Ram, shearing: 1, Whitelaw; 2, Kelly; 3, Rodger. Ram lamb: 1, Whitelaw; 2 and 4, Rodger; 3, Rodger. Best ram, Whitelaw. Ewe, Kelly; 3, Rodger. Best ewe, Whitelaw. Ewe, shearing: 1 and 2, Whitelaw; 3 and 4, Kelly. Ewe lamb: 1 and 2, Whitelaw; 3 and 4, Kelly. Graded pen: 1, Whitelaw; 2, Kelly. Pen lambs: Whitelaw.

SHROPSHIRE.

SHROPSHIRE.—Exhibitors.—John R. Kelsey, Woodville; J. & D. J. Campbell, Woodville; J. H. Hamner, Burford; G. W. Gurney & Sons, Paris; J. Lloyd-Jones, Burford. Awards.—Ram, aged: 1 and 2, Campbell; 3, Hamner; 4, Kelsey. Ram, shearing: 1, Campbell; 2 and 3, Hamner. Ram lamb: 1 and 4, Campbell; 2, Hamner; 3, Kelsey. Best ram, Campbell. Ewe, shearing: 1 and 4, Campbell; 2, Kelsey; 3, Hamner. Ewe lamb: 1 and 4, Campbell; 2 and 3, Gurney. Best ewe, Campbell. Graded pen: 1, Campbell; 2, Hamner. Pen lambs: 1, bell; 2, Hamner; 3, Gurney.

OXFORDS.—Exhibitors.—P. Sylvestre, Clairvaux, Que.; P. Arkell & Sons, Teeswater; H. C. Arkell, Teeswater, and M. Marquis & Son, Uxbridge. Awards.—Ram, aged: 1, P. Arkell; 2, H. C. Arkell; 3, Sylvestre. Ram, shearing: 1 and 2, P. Arkell; 3, H. C. Arkell; 4, Marquis. Best ram, P. Arkell. Ewe, shearing: 1, 2 and 3, P. Arkell; 4, H. C. Arkell. Ewe, lamb: 1 and 2, P. Arkell; 3, H. C. Arkell; 4, Marquis. Champion ewe, P. Arkell. Pen: 1, P. Arkell; 2, H. C. Arkell. Pen, lambs: 1, P. Arkell; 2, H. C. Arkell.

DORSETS.—Exhibitors.—W. E. Wright, Glanworth; F. F. Wright, Glanworth; J. Robertson & Sons, Milton; Forster Farm, Oakville. Awards.—Ram, aged: 1, W. E. Wright; 2, F. F. Wright. Ram, shearing: 1, W. E. Wright; 2, F. F. Wright; 3, Robertson. Ram lamb: 1, W. E. Wright; 2, Robertson; 3, F. F. Wright; 4, Forster Farm. Best ram, W. E. Wright. Ewe, shearing: 1, W. E. Wright; 2 and 4, Robertson; 3, Forster Farm. Ewe, lamb: 1 and 4, W. E. Wright; 2, Robertson; 3, Forster Farm. Best ewe, W. E. Wright. Pen, W. E. Wright.

SOUTHDOWNS.—Exhibitors.—J. W. Springstead & Son, Abingdon; Rob't. McEwen, Byron; J. Lloyd-Jones; G. F. Telfer, Paris. Awards.—Ram, aged: 1, McEwen; 2, Springstead; 3, Lloyd-Jones. Ram, shearing: 1, McEwen; 2, Springstead; 3, Lloyd-Jones. Ram, lamb: 1 and 2, McEwen; 3, Springstead; 4, Telfer. Champion ram, McEwen. Ewe, shearing: 1 and 3, McEwen; 2 and 4, Springstead. Ewe, lamb: 1 and 2, McEwen; 3, Hammer; 4, Springstead. Best ewe, McEwen. Pen: 1, McEwen; 2, Springstead. Pen lambs: 1, Springstead; 2, McEwen.

LINCOLNS.—Exhibitors.—F. B. Gosnell, Highgate; H. Lee, Highgate; J. Linden, Denfield. Awards.—Ram, aged: 1, Lee; 2, Linden; 3, Gosnell. Ram, lamb: 1 and 2, Lee; 3 and 4, Linden. Best ram, Lee. Ewe, shearing: 1 and 3, Lee; 2 and 4, Linden. Ewe, lamb: 1, 3 and 4, Lee; 2, Linden. Best ewe, Lee. Pen: 1, Lee; 2, Linden. Pen, lambs: 1, Lee; 2, Linden.

HAMPSHIRE.—Exhibitors.—J. Kelly, Shakespear; G. Telfer, Paris; P. Arkell & Sons, Teeswater; P. Sylvester. Awards.—Ram, aged: 1, Telfer; 2, Sylvester. Ram, shearing: 1, 2 and 4, Arkell; 3, Kelly. Ram, lamb: 1 and 3, Kelly; 2 and 4, Telfer. Ewe, shearing: 1, 2 and 3, Kelly; 4, Telfer. Champion ewe, Kelly. Pen: 1, Kelly; 2, Telfer. Pen, lambs: 1, Kelly; 2, Telfer.

SUFFOLKS.—Exhibitors.—Geo. Henderson, Guelph; James Bowman, Guelph. Awards.—Ram, shearing: 1, Bowman; 2, Henderson. Ram, lamb: 1 and 3, Bowman; 2 and 4, Henderson. Best ram, Bowman. Ewe, Suffolk: 1 and 2, Bowman; 3 and 4, Henderson. Ewe, lamb: 1 and 3, Bowman; 2 and 4, Henderson. Best ewe, Bowman. Pen: 1, Bowman; 2, Henderson. Best pen long wool, H. Lee. Best pen, short wool, Campbell.

COTSWOLDS.—Yearling wether: 1, 2 and 4, Brien; 3, Park. Wether, lamb: 1, 2 and 3, Brien; 4, Park. 3 wether lambs: 1 and 2, Brien; 3, Park. Best wether, Brien.

LEICESTERS.—Yearling wether: 1 and 2, Kelly; 3 and 4, Whitelaw. Wether, lamb: 1, 2 and 3, Kelly; 4, Whitelaw. 3 lambs: 1, Kelly; 2, Whitelaw. Best wether, Kelly.

SHROPSHIRE.—Yearling wether: 1 and 2, Campbell; 4, W. E. Wright; 3, Lloyd-Jones. Wether, lamb: 1, Lloyd-Jones; 2 and 4, Campbell; 3, Kelly. 3 wethers: 1, Campbell; 2, Lloyd-Jones; 3, Kelly. Champion wether, Campbell.

OXFORDS.—P. Arkell took all the awards. **SOUTHDOWNS.**—Yearling wether: 1, Lloyd-Jones; 2, McEwen; 3 and 4, Arkell. Wether, lamb: 1, Hammer; 2, Lloyd-Jones; 3, Springstead; 4, McEwen. 3 lambs: 1, McEwen; 2, Hammer; 3, Lloyd-Jones. Best wether, Lloyd-Jones.

DORSETS.—Yearling wether: 1 and 2, W. E. Wright; 3, F. F. Wright. Wether, lamb: 1, 2 and 3, W. E. Wright; 4, Robertson. 3 lambs: 1, W. E. Wright; 2, F. F. Wright. Best wether, W. E. Wright.

LINCOLNS.—Yearling wether: 1 and 3, Linden; 2, Lee; 4, Brien. Wether, lamb: 1 and 2, Lee; 3, Linden; 4, Kelly. 3 wethers: 1 and 3, Lee; 2, Linden. Best wether, Linden.

HAMPSHIRE.—Yearling wether: 1, Kelly. Wether lamb, Kelly.

SUFFOLKS.—Yearling wether: 1, Bowman; 2, Henderson. Wether lamb: 1 and 3, Henderson; 2 and 4, Bowman. 3 wethers: 1, Henderson; 2, Bowman.

GRADES AND CROSSES, long wool.—Yearling wether: 1, Lee; 2, Whitelaw; 3, Brien. Wether, lamb: 1, Whitelaw; 2, Linden; 3, Brien. 3 lambs: 1, Brien; 2, Whitelaw; 3, Linden. Champion, Lee.

Short wool.—Yearling wether: 1 and 3, Campbell; 2, Kelsey. Wether, lamb: 1 and 2, Kelly; 3, McEwen. 3 lambs: 1, Kelly; 2, Lloyd-Jones; 3, Campbell. Champion, Campbell. Grand champion wether, Campbell.

SWINE.

That the swine breeders of Ontario and Quebec appreciate the efforts put forth by the management to establish a really national show was shown in the large and representative entry in the various breeds, an entry totalling about 305 head, an increase of about 50 over the entry at the Canadian National in September last, and of a quality never excelled by any former exhibition in Canada. The judging accommodation was not up to the standard, but no doubt another

year will remedy any defect in this particular.

YORKSHIRES.—The exhibit of Yorkshires was one of the best ever brought together on those historic grounds, and represented the best efforts and fitting of many of the leading Canadian breeders they were judged by Prof. G. E. Day, of Guelph, and exhibited by J. Featherston & Son, Streetsville; J. E. Brethour & Nephew, Burford; R. S. Frisby, Victoria Square; W. Manning & Son, Woodville; Sunnybrook Farm, Eglinton, and John Duck & Son, Port Credit. Boar, two years and over had an entry of four ranging in size from 700 to 1,200 pounds, of a type and quality seen nowhere else in the world outside a Canadian showing. First went to Manning on last fall's Canadian National champion, Eldon Duke; second, to Frisby, on Eli's Royal Governor; third and fourth, to Featherston, on Anderson's Money Maker, and Sunny Brae Goldfinder. Boar over 18 months and under two years: one and two, Featherston. Boar over 12 and under 18 months: one and three, Featherston; two, Sunnybrook Farm. Boar over six and under 12 months: one and two, Featherston. Boar under six months: one and four, Brethour; two, Duck; three, Featherston. Best boar, any age, Manning. Sow two years and over: one and two, Featherston; three, Manning. Sow over 18 months and under two years: one and two, Featherston; three, Manning. Sow over 12 and under 18 months: one, Featherston; two, Brethour; three and four, Sunnybrook Farm. Sow over six and under 12 months: one, two and three, Brethour; four, Featherston. Sow under six months: one, Featherston; two and three, Brethour. Best sow any age, Featherston. Boar and two sows: one, Brethour; two and three, Featherston; four, Duck. Litter of three: one and two, Brethour. Boar and four sows, all under twelve months: one, Brethour; two, Featherston. Farrow, six months and under nine: one and three, Brethour; two, Featherston. Barrow, under six months: one, Featherston; two, Duck; three, Brethour.

TAMWORTHS.—Tamworths were out strong, both in numbers and quality, exhibited by J. D. Douglas & Sons, Mitchell, and P. W. Boynton & Son, Dollar, the awards being placed by S. Dolson, Norval Station. With the exception of section seven, for sow over one and under two years, where third went to Boynton, all the awards went to Douglas.

HAMPSHIRE.—This breed made a strong showing from the well-known and high-class herds of Hastings Bros., Crosshill; J. H. Rutherford, Caledon East, and T. Readman, Erindale. They were judged by S. Dolson, whose rulings were as follows: In the class for boar, two years and over, first went to Rutherford, as did also second and third on boar over one and under two years. Readman's winnings included second on boar under six months, third on sow over one and under two, second on sow over six and under twelve months, and third on boar and two sows. All the other awards, including both championships and the barrow prizes, went to Hastings Bros.

CHESTER WHITES.—This breed was out stronger than has been seen in Toronto for several years. Besides the two noted herds of D. DeCoursey, of Bornholme, and W. E. Wright & Son, Glanworth, a strong exhibit was brought out by P. Sylvester, of Clairvaux, Que. Worthy of note was the strong character of the entire exhibit, particularly the class for aged sows. This class was also judged by Prof. Day, whose awards were as follows: Boar, two years and over: one, Sylvester; two and three, DeCoursey. Boar, over one and under two years: one and three, DeCoursey; two, Wright. Boar, over six and under twelve months: one and two, DeCoursey; three, Sylvester. Boar, under six months: one and three, Wright; two, DeCoursey; four, Sylvester. Best boar, any age: Wright, on his six months and under entry. Sow, two years and over: one and four, Wright; two, DeCoursey; three, Sylvester. Sow, over one and under two years: one, DeCoursey; two and three, Wright; four, Sylvester. Sow, over six and under twelve months: one and three, DeCoursey; two, Sylvester; four, Wright. Sow, under six months: one and four, DeCoursey; two and three, Wright. Best sow, any age: DeCoursey. Boar and two sows: one and four, Wright; two and three, DeCoursey. Litter of three: one, Wright; two, DeCoursey. Barrow, six and under nine months: one and two, Wright; three, DeCoursey. Barrow, under six months: one and three, DeCoursey; two, Wright.

BERKSHIRE.—The battle royal of the swine exhibit came in the Berkshire classes, some of which showed a remarkable uniformity, and high-class merit was conspicuous all through the exhibit. Again Prof. Day placed the awards for the following well-known breeders: S. Dolson & Son, Norval Station; H. Dolson, Alloa; W. W. Brownridge, Georgetown; Josh Lawrence, Woodstock; P. W. Boynton & Son, Dollar; E. Brien & Son, Ridgeway, and Frank Teasdale, Concord. Awards.—Boar, two years and over: one, Brownridge. Boar, over eighteen months and under

two years: one, Teasdale. Boar, over twelve and under eighteen months: one, Boynton; two, S. Dolson; three, Lawrence. Boar, over six and under twelve months: one, Lawrence; two, Brien; three, H. A. Dolson. Boar, under six months: one, H. A. Dolson; two, Brien; three, Boynton. Best boar, any age: Brownridge. Sow, two years and over: one and two, Brownridge; three, Boynton; four, H. A. Dolson. Sow, over eighteen months and under two years: one, Brownridge; two and four, H. A. Dolson; three, S. Dolson. Sow, over twelve and under eighteen months: one, Brien; two, H. A. Dolson; three and four, S. Dolson. Sow, over six and under twelve months: one and two, Brownridge; three, Brien; four, H. A. Dolson. Sow, under six months: one, H. A. Dolson; two, Brownridge; three, Brien. Best sow, any age: Brownridge. Boar and two sows: one, Brownridge; two, H. A. Dolson; three, Brien; four, Boynton. Litter of three: one Brien; two, Brownridge. Barrow, six and under nine months: one and three, P. Dolson; two, Brien. Barrow, under six months: one and two, Brien; three, S. Dolson.

EXPORT BACON HOGS, PEN OF THREE.—Not for many years at the Toronto, Guelph or Ottawa shows has the exhibit of bacon hogs been up to the standard of excellence shown here, nor the fitting so uniform all through, comments on the high standard of the exhibit being heard on all sides. In the class for pure-breds, there were eleven lots out, exhibited by J. Featherston & Son, John Duck, D. Douglas & Son, W. Manning & Son, J. E. Brethour & Nephew and S. Dolson. Prof. Day made the awards. One, five and seven went to Featherston; two to Duck; three, four and six to Featherston; eight to Douglas, and nine to Dolson.

In the class for grades or crosses, there were nine lots out and the quality was well maintained. The exhibitors were the same as above with an entry from R. D. Frisby. One and three, Brethour; two, Douglas; four, Frisby; five, Manning.

Sweep down the Stable Walls.

Editor "The Farmer's Advocate":

Now is the time to look after the cobwebs in the stable. My hired man came in from the field the other day and said, "You will have a good crop next year, because I have plowed down my watch." A watch he had purchased but two days before. He wanted to know if watches would stool well, and how long it would be until he could grow a grandfather clock. His mind was on the old saying, "What you sow you also reap." It is the same with the cobwebs, if you let them alone they will multiply, which is detrimental. Where you see cobwebs and dirty stables you usually find unthrifty cattle, horses and pigs. In fact nothing is likely to do well where these accumulate in abundance, at least not so well as if it were not there.

This is the time of year at which all stables should be swept thoroughly. There are plenty of wet days, and a man is better at that than sitting with his feet at the fire. One man with an old broom can make a big change in a large stable in a short time.

If the stable walls and ceilings have not been swept before the cattle and other stock have been put in, it would be better for them to stand out in the cold a few hours while they are swept and the dust is allowed to settle, than to stand in an unhealthy stable all winter. Cleanliness and health go together, while dirt and disease are generally found in the same stable.

If the stables could be swept early in the fall and then sprayed with some good disinfectant and given a chance to air well before any stock go in, so much the better, but that is the time of year when the farmer is busy getting out roots and finishing his ploughing, so he has little time for anything else, and unless he is favored with a wet day the cobwebs are neglected. There are a few other things which should be done, such as getting the broken window panes replaced with new ones, and cow-chains or mangers which need repairing before the dead of winter sets in.

Dufferin Co., Ont. CLIFTON M. HAND.

There is one particular in which management of large exhibitions could very often improve and that is in the arrangement and spelling of names of animals and exhibitors in their catalogues. It is a source of worry to the man attempting to report an exhibition to find the same man's name spelled three or four different ways, or to find the animal's name which appears several times spelled about as many different ways as it has letters in it, and that means a few in the case of Holstein cattle or Percheron horses. Exhibitors and the reading public like to know who owns the winning animals and what the correct names of those animals are. This is a matter worthy the consideration of all show managements, some of which have great room for improvement.

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THE FARM.

Agricultural Education in Canada.

A short time ago we published a list of the number of students attending the agricultural college at Guelph, Ontario. The four classes in the regular course at that institution number 430, of which 321 hale from Ontario. The numbers coming from other countries and provinces were published in our issue of October 23rd. Now that the regular courses are open at the other agricultural colleges and schools in Canada, we have obtained from their official heads statements giving the number of students at each.

Commencing in the East the Nova Scotia Agricultural College opened on November 4th last with an enrolment of 90, which, in proportion to the size of the constituency, is a most satisfactory attendance. A number more applications have been received from students, who owing to the lateness of the season, will not be able to report for a short time. When the enrolment is complete, it is anticipated that the attendance will be considerably over the century mark. During the year a number of changes have been made in the faculty at the college. Prof. J. H. Trueman, formerly head of the Dairy Division at the Connecticut Agricultural College, Storrs, Conn., has assumed the position of Professor of Agriculture and Farm Superintendent. W. H. Brittain, B. S. A., formerly Entomologist and Plant Pathologist for British Columbia, has assumed the position of Professor of Zoology and Entomologist for the Province of Nova Scotia. Both Messrs. Trueman and Brittain are natives of New Brunswick, and have taken up their work at Truro with a thorough knowledge of local conditions prevailing in the Maritime Provinces.

Several further additions to the staff are contemplated, and will be announced at a later date. Preparations are being made for the largest Short Course in the history of the College, to be held from January 6th to 16th next. The new buildings erected during the past two years and the increased faculty will make it possible to carry on this Short Course much more effectively than ever before in the history of the institution. Applications are already being received from those who purpose attending. The present enrolment at the College is made up as follows: Nova Scotia, 47; New Brunswick, 26; Prince Edward Island, 6; Newfoundland, 2; British Columbia, 1; United States, 2; Great Britain, 6.

Skipping Ontario, whose records were previously given, Manitoba Agricultural College is next in line. President W. J. Black reports that at this College there are registered this year in agriculture, 242, and in home economics, 64. The attendance is increasing daily, and a number are yet to come. The attendance from provinces, etc., is, approximately, as follows: British Columbia, 3; Saskatchewan, 51; Manitoba, 227; Alberta, 11; Winnipeg (city), 11; direct from the Old Country, 6.

As students in agriculture are not admitted to the Manitoba College from towns or villages, unless they have spent at least two summers on a farm, the entire attendance may be taken as coming from the farm; in fact comparatively few—perhaps not more than five per cent.—of the young men have come from town or city homes. Prof. Black estimates an increase in attendance over last year of about twenty-five per cent.

The agricultural college in connection with the University of Saskatchewan, located at Saskatoon, reports the registration in the certificate course in agriculture as not yet completed. For the degree of B. S. A. two are registered in the second year, and seven in the first year. For the certificate course about forty are expected in the second year and about sixty in the first year, or probably one hundred and twenty in all in agriculture. The registration last year was sixty-four in the first year of the certificate course.

Alberta has three agricultural schools where courses of study are put on leading up to agricultural degrees to be obtained from the college to be established. At Claresholm ninety students will be registered and the men will average about eighteen years of age, and practically all of them, with the exception of two or three, are from the farms. The age of the girls will average about twenty years. The course in agriculture will extend over a period of five months, and in household science for this year, it will be a two-month's course. There are no tuition fees, the only expense being for books and lodging. The equipment in connection with this school is fairly complete. Besides having a main building which will accommodate about 250 students, a mechanics' building is being erected. The course of work pursued is the same as that carried on at the Manitoba Agricultural College and Guelph during the first two years.

The school at Olds has 47 students enrolled, and six or seven more are expected soon. The agricultural course began October 28th and will continue until March 28th. This year only two months will constitute the Domestic Science Course, which begins January 6th. So far every

student who has registered is from the farm. No attempt is made to take students from the public school nor from the high school. The ages run from 15 to 27, and the average is slightly under 20. The aim of the school is to train the young man to go back on the farm. The first two years are modelled after Guelph and Manitoba Agricultural Colleges, with a particular adaption to western conditions. It is planned that two years will complete the course, and the end of the course is back to the farm for the boy.

There is another school at Vermilion operated on the same lines as those at Olds and Claresholm. We also got the number of students in attendance, which is twenty-one.

Just before going to press we received the report from Macdonald College, St. Anne De Bellevue, Que. In the regular four-year course they have 123 students, in the school for teachers 169, and in household science 79, making a total of 371. Of these 29 come from Quebec, 23 from Ontario, 16 from New Brunswick, 11 from Nova Scotia, seven from Prince Edward Island, three from Alberta, one from Newfoundland, four from England, one from Ireland, three from West Indies, two from South Africa, and nine from the United States.

These are the number of students actually engaged in the study of agriculture in Canada just now. They are all taking the regular courses, and their numbers will be swelled greatly during the winter by short courses in each college. Not counting the Teachers and Domestic Science courses, there are then nearly 1,200 students taking special agricultural training. Adding the Domestic Science and Teachers there are likely over 1,600, a grand total.

Why Not Ontario?

Editor "The Farmer's Advocate":

Nothing of recent years has attracted wider attention than the United States Land Show, which was instituted some five years ago by the Chicago Tribune, and is now in progress in the Coliseum, Chicago.

This show has become an annual affair, and every State in the Union having cheap lands has large and very attractive exhibits of agricultural products, whether it be fruit, vegetables, grain or alfalfa hay. Railway companies must find this a profitable source of advertising, as we find them here year after year booming the lands along these lines, including the C. P. R., G. T. R. and C. N. R.. Many Canadian provinces avail themselves of this opportunity to display their wares and charms. Why not Ontario? No other province or state has so much to boast of and so little to say. We advertise the fact in our government reports that the rural population is less than it was some years ago.

No man knows but the man with a very enquiring mind and has time to investigate for himself that Ontario has any especial attraction, or is a particularly desirable place to live in. We are laughed at when we say we can and do grow great quantities of corn, grapes, peaches and tobacco.

Farmers make money here too. I wonder what kind of a noise one of the Western States or Provinces would make if a farmer could sell \$12,000 worth of crops from a 50-acre farm in a single season. Yet these men can be found in Ontario and on land that can be bought for two hundred dollars per acre, and I doubt if the fact is known outside of the county where it was accomplished. Other lands have found it profitable to make a little noise sometimes—to "blow their own horn" as it were. Why not Ontario?
Essex Co., Ont. J. O. DUKE.

Good Silage from Wilted Corn.

Editor "The Farmer's Advocate":

I noticed your advice re wilting green corn given in due time to growers of corn for the silo. We thought it was good advice, but there were not many that acted upon it here. We had ours pretty well matured, and, as we cut it with the corn harvester, we stooked it (it may be stooked just as well when unbound). It was in stook about ten days, and was very dry when put into the silo. The sheaves were so shrunken as to seem as though they had never been tight, as one man remarked, being so shrunken before going into the silo it did not settle much after being put in. It is the best silage I think we ever had. We have never had a roof on our silo, but I am trying to plan a flat roof that I can remove when filling, as we have found some inconvenience in filling silos with roofs on. If I succeed in this I may let you know and get your opinion on it.
Huron Co., Ont. R. C. MCGOWAN.

All the Family Want It.

Please find enclosed \$1.50 for renewal of your valuable paper. It is appreciated by every one of the family, we can't be without it.
Huron Co., Ont. S. BAECHLER.

Cold Weather Concrete Stable Floors.

Editor "The Farmer's Advocate":

The chief disadvantage to the use of concrete on the farm, when the farmer does the work himself, is that the best season for this work is over before he has time to undertake construction of any kind. Using proper protection concrete work need not cease with warm weather, although such work as walks, silos and other outside work subject to extreme cold gives better results when completed in summer. Nevertheless, a stable floor, for instance, can be put in in the late fall or even when the temperature is below freezing and the concrete will be just as good as that laid in summer if the work is properly protected. The writer knows of a farm, twelve miles from Brantford, Ont., where such a floor was laid in winter with excellent results.

In ordinary cool weather the protection need only be a covering of straw, manure, sawdust or sand until the work has hard set, as the final set is called, when the concrete is safe. There are two distinct batches to be made in this class of concrete work—the rough, or lower part of the concrete, and the top, or upper layer. Aside from a too lengthy review of the general strength of concrete, the value of crushed stone and the different kinds of gravel, the easiest way for the inexperienced man to put in a floor is to use what is known as pit-run gravel, that is the gravel as it is found in the gravel pit before it has been separated into the different classes. A little more cement is required, but this is better than going to the expense of screening. Portland cement, of which there are many brands, is the only satisfactory cement to use. Therefore for a stable floor there is to be used pit gravel, cement and clean water. Water in which there is lime is injurious to concrete work at this time of year, because the lime holds the frost and the concrete crumbles. The mixture should be about five to one for the rough and three to one for the top. This is a rich mix, but it is better to pay for the floor in the first place and not have to patch. "Five to one" means that for every bag of cement there is to be used five bags of gravel. Of course, this can be measured in a wheelbarrow.

In cool, or cold, weather the concrete should be mixed inside. This may be difficult when part of the stable is in use, but the things to remember are to keep the cement dry and to keep the concrete from freezing. Material which is too cold will appear to set, but it is a false set and will crumble when it thaws. In laying a concrete floor the first step is to prepare the bed. This is done by filling in to the required height and tramping the fill until it is hard. If the land is of clay, gravel is needed for a drainage. Cinders are better, but they are not to be had in the country. About three inches are enough on top of a fill, because a light loam fill is a drainage in itself. Gutter forms should be of smooth lumber, braced every few feet on the outside and kept apart by width boards, which are knocked out as the concrete meets them. A rounded form is hard to build, but a V-shaped gutter is simple. It is better to build the forms the entire required length at once if possible. After twenty-four hours it is safe to remove the forms. Extensive form building is a complicated matter, but little trouble need be experienced in stable forms. The concrete in forms has to be protected like the rest of the work.

The actual mixing should be done on a board as nearly watertight as possible. The cement is to be mixed dry into the gravel. Then, while two men are turning the batch, a third pours on the water, a little at a time, until every part of the mix is wet. It is not advisable to have the batch too wet. Next the rough is deposited and raked to a rough level and thoroughly tramped. To do this an ordinary wooden pounder will answer, though iron is better. If the floor is big, level pegs will be needed to keep the whole at level. The straightedge is laid across the pegs to give the proper level. In a small floor, these pegs are not needed. The simplest way to put in level pegs is to measure the distance from the floor above to the scene of the work in the stable and to use the same measurement all over the floor. In a small floor, a two by four laid from one side of the floor to the other will do away with level pegs. Three inches is enough for the rough and one and a half inches for the top. The top should be of finer material than the rough, so as to give a good wearing surface and to allow for a smooth finish. The top is of more importance than the rough if cracks are to be prevented.

The top is mixed in the same way as the rough, but it is most important to have the top on before the rough has set; otherwise the concrete will not knit together. As soon as a batch of rough is off the board the top should be started and by the time it is mixed the rough will be ready, if the batch of rough has not been too large. Enough water should be in the top

so that the mix will slowly pour from a pail. The top is poured on and levelled with the straightedge and left for the initial set to take place. There should be a board placed at the limit of each batch to prevent the concrete from spreading too far. This board also serves as a frost expansion joint if required. Expansion joints are half-inch spaces through the concrete which afterwards are filled with hot pitch. This is to allow for the action of the changes in temperature on the concrete. If the top does not dry fast enough a drier of one part cement to one part of fine sand should be sprinkled on. Testing with the fingers is the simplest way to tell whether concrete is ready to finish or not. If ready the fingers will leave a decided mark, but will not sink in far.

Proper finishing is a trade in itself, but a farmer can get a pretty fair finish if he is careful. This work is done with a plasterer's trowel, although there are automatic trowels on the market the writer has seen used to considerable advantage. The man doing the finishing kneels on a board and rests his weight upon a float. This is a smooth board used to rub up the concrete and to remove the inequalities in the surface. This is done by "ironing," which is rubbing with a short, quick motion. The trowel is held lightly and is swung with full arm swings, very lightly, so that the edge and a little of the flat only touch the new surface. The first swing of the trowel is to be the longest, gradually bringing the work narrower so as to get rid of the water. The use of the float will depend upon the condition of the surface. The marking off is done when the concrete is still moist. This is to divide the work into blocks. The writer has found the easiest way to do this work is to have two men hold a tightly-drawn inch rope and for a third to run along and pat it with the trowel. Finishing is work requiring considerable experience, though a stable floor need not be too smooth.

The next consideration is the protection from frost. As soon as the finishing is complete, clean straw or manure is heaped upon the concrete to a depth of about four inches. If any canvas sheets are near it makes a neater job to cover the concrete with these first before using the sand or manure. Care should be taken to lower the covering gently for fear that rough usage will injure the concrete. In ordinary cold weather this is all the protection necessary, because the fact that the work is inside is in itself a protection. Sometimes a floor is wanted when the work is delayed until the temperature is below freezing. It is difficult to protect outside work at this temperature, but inside work is possible if additional precautions are taken. The material must be heated. The simplest way for the farmer to do this is to build a fire of saw logs, as close to the job as is safe, and to leave a good space between the logs to hold the gravel. Heap the gravel nearly level with the tops of the logs. There may be several ways to heat the water near the stable; the chief thing is to heat it. It isn't necessary for the material to be roasting hot, but it must be reasonably warm. There are many other ways of heating material, but the quickest way for the inexperienced man is usually the best. In an empty stable in very cold weather, if it is possible, it is well to have some means of keeping the interior of the stable warm until the concrete has set, such as cans of hot coals. In the majority of cases this is, of course, out of the question.

Should the work not be completed at the end of the first day, the end of the last day's work must, on operations being resumed, be roughened with a pick so as to provide for a proper bond between the old and the new concrete. Washing the old concrete is not necessary for this class of work. Horses should not be taken over concrete until forty-eight hours have elapsed. If this can't be avoided boards should be placed for the horses to walk upon.

In buying cement it is well to observe that the cement has been properly stored; that it is not lumpy; that it has not been piled near some damp wall. It is also well to know the age of the cement, but usually the dealer's word has to be taken for this. Cement that is very old has lost much of its strength. These precautions are well to be observed by the farmer at all times, even after he has the cement on hand, but particularly to keep the cement dry. Cement should always be piled on poles under cover and should always be kept away from the walls. The idea of the covering is not only for a protection from damp, but from air as well, because air affects cement.

Concrete construction has taken a wonderful place in the industrial world and it is rapidly coming into general use throughout the farming districts as a recognized building material. Concrete construction is lasting, sanitary and fire-proof. A concrete building requires skill to erect, but there are many places on the farm where the owner, with little assistance, can em-

ploy concrete, not only as a present means of benefit, but as an adjunct to the future value of his farm.

YORK CO., ONTARIO.

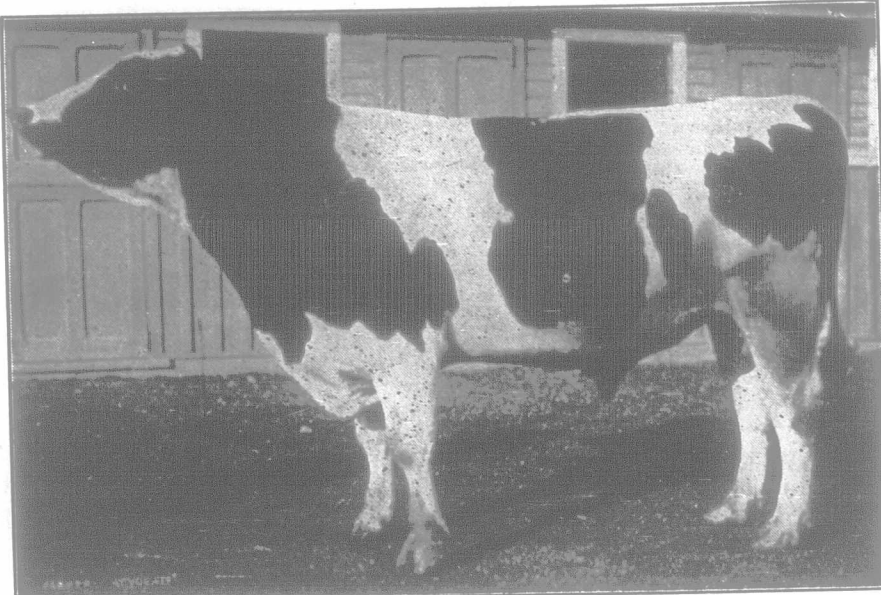
Note.—We would not advise attempting to do concrete work in too cold weather, but there are many good points for the beginner in cement work in this article.—Editor.

THE DAIRY.

Milk Prices in Oxford Co., Ont.

Editor "The Farmer's Advocate":

Twenty-five years ago the local cheese factory was the only place where the farmer could dispose of his milk, and when cheese was only selling at from eight to ten cents a pound the returns were not very large, often ranging from 70 to 80 cents per hundred pounds. But of late years the situation has changed very much. The condensing factory in Ingersoll has been taking large quantities of milk from the cheese factories, in fact one or two factories have been closed altogether. And Toronto milk and cream wholesale men have been getting considerable cream and a little milk from this district. I understand that the condenser is now paying some \$1.60 per hundred, and the Toronto people about the same. A few farmers have been shipping milk to Windsor and after expenses are paid they are netting about \$2.00 per hundred pounds. Of course the demand at this price is very limited, and as the milk is not distributed to the consumers until the day following that on which it is taken from the cows and not used until the third day, it will be understood that extra care



Homestead Colantha Prince Canary.

Champion Holstein bull at the New National Show. Owned by Wm. Watson, Pine Grove, Ont.

must be taken in cooling and handling or it would not be fit to use. The patrons of our cheese factories got about \$1.12 per hundred for the October milk. Now, this may at first sight look small compared to \$1.60 or \$2.00, but we must remember that the most of our patrons realize as much, if not more, from the sale of pigs as they do from their milk. Some of our 100-acre farmers get from \$500 to \$800, and some even more, from the cheese factory, and they, as a rule, make more than that from their pigs fed on the whey returned from the factory. Of course the pigs require considerable grain to finish them off, but if all the grain were sold it would not realize half the amount that the pigs bring, and then besides, there is the manure that the pigs make, which is certainly worth a great deal. Farmers who send to the condenser generally drop out of pigs entirely, as they consider that without whey or separated milk pigs are not profitable stock. It is the farmer's privilege to sell his milk wherever he can make the most money, but it is wisdom to look at every side of the question and figure out all the items before deciding which is the most profitable way of disposing of their milk. The cheese factory has been a great boon to the farmers of Oxford County in the past; in fact it was the making of the farming industry, and we should not despise it now, and we ought to feel a little sympathy for the cheesemakers who have invested, in many cases all their money in the cheese factory, but times change and we have got to change with them.

D. L.
Oxford Co., Ontario.

Preserve the Butter Industry.

All who have at heart the future of Canadian dairying and the real interests of the consuming public will be well advised to be on their guard against any attempts, direct or insidious, to weaken and ultimately break down the wholesome legislation insuring honest products upon which the industry so largely rests. As stated in last week's "Farmer's Advocate," what is known as "filled cheese" has been kept out of Canada, and the manufacture, importation and offering, selling or having in possession for sale of any oleomargarine, butterine or other substitute for butter manufactured wholly or in part from any fat other than that of milk or cream is prohibited. For various reasons cheesemaking, especially for export, is not making the progress in Canada that it once did, but milk, cream and butter production is making a large and gratifying advance. Manufacture of butter for home consumption is increasing and a very considerable export trade to Newfoundland has developed. In the United States, oleo and bogus butter products are entrenched, backed by the big meat interests, which have been almost sufficiently powerful to throttle the Government itself and keep dairy farming involved in a constant struggle. The self same or similar interests, allied with others in "the trade," may desire a foothold for imitation products in Canada under the specious plea that the people would be benefitted by having access to cheaper foods, but really to enrich themselves. In order to lull the farmer the pretence is made that it might further advance the price of cattle and hogs, the packing-house fats, scraps and leavings of which largely enter into the composition of oleo. The net result of this to the town consumer would be to relieve him perhaps of paying a few cents extra for honest butter and then more than take it out of him in the price of meats and lard, a game that would play into the coffers of the "big interests" at both ends. The industrial classes and the Canadian public generally have no need nor desire to be dragged down to foreign food standards. In Europe it has been found that only by the most rigidly and strictly enforced regulations can these imitation products be kept within reasonable bounds. In Canada it would also mean the employment of an army of salaried officers to keep the manufacture and sale of such products under their own name, and the history of the traffic elsewhere shows that it could only be partially successful. Incidentally, the public, or the vast majority of

them, would be deceived.

The whole history of the oleo business has been fraught with deception and fraud. In compounding oleomargarine, different manufacturers use different materials and there are a number of brands, some of which, in payment of a U. S. inland revenue tax, are colored to look like butter. "The Farmer's Advocate" has examined oleo wrappers which, presumably, were technically printed in accordance with Government regulations, yet when put upon the package on the store counter the true designation would be in very fine though long enough letters, while in full view of the customer would be perhaps some such word as "JERSEY," in very plain type, leading him to imagine he was getting Jersey butter. Oleo usually contains oleo oil (made from the intestinal fat of beef animals), hog's lard, cotton-seed oil and butter oil, as well as other vegetable or animal products, according to the particular formula used, with the object of making a compound that would yield the most profit on the materials and labor involved. The pretext that oleo is the "poor man's butter" will not lead legislators in Canada into the dangerous experiment of tampering with one of the foundation agricultural interests of the country. After many years of strenuous and costly endeavor by producers and Government agencies a sound and only reasonably remunerative industry (with prices not burdensome) has been developed, and it would be little short of criminal by the advent of bogus products to throw it into confusion and jeopardize its existence.

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Buying and Selling Dairy Cows.

Editor "The Farmer's Advocate":

In the improvement and maintenance of a profitable herd of dairy cows it is necessary to both buy and sell. The buying is for the purpose of bringing better animals into the herd, and the selling is, of course, for the purpose of getting rid of the poorest. It is necessary, therefore, to buy at a high price and sell at a low price. This is such a hard thing for a tight-fisted man to do that many farm herds are not improved at all.

The man that owns a cow too poor to be kept in the herd should have the honesty not to sell that cow to another man that is trying to improve his herd. She should, in all cases, go to the butcher. One can improve his herd very rapidly by annually buying one good cow of large milk-producing capacity, and at the same time disposing of his poorest cow. It is not necessary to increase the number of cows in the herd to increase the aggregate amount of milk produced. I have seen men in the milk-producing business try to increase their milk supply by increasing their number of cheap cows. Never yet has a man made money by doing that. Usually that course leads to discontinuance of the dairy business.

Though one may have to search far for the kind of a cow he wants, it will pay him to do so, and especially is this true if he intends to retain her for a breeder. Every cow that is purchased for use in the dairy should be purchased with the idea of using her for a breeder.

There are two general places in which cows can be purchased, on the farms and in the city stock yards. The farms have the advantage in that something may be known of the cows purchased. A cow found in the stock yards is under suspicion of having reacted to the tuberculin test, though the suspicion may be without foundation. But it is best to be on the safest side, and those really interested in the improving of their herds will do well to go out and hunt for the cows they want.

Still, it should be borne in mind that tuberculosis is present in many rural localities, and some of the affected herds are losing individual cows from the disease. But in buying cows on the farm, the chances of obtaining animals affected with tuberculosis are not nearly so great as in getting them at the stock yards, for it is a practice with many to send their cows to market as soon as there are indications of the presence of the disease. In buying cows, either on the farm or at the stock yards it is, therefore, a wise measure of protection to have every cow tested with tuberculin before the payment of the cost money is made.

In the purchase of cows for the dairy, it is better to obtain those that are about four years of age rather than younger. By that time the real ability of the cow to produce milk will have manifested itself. In the six years following that age the cow will produce her maximum yield of milk, and will produce the strongest and best calves. In selecting a locality in which to hunt for good dairy cows, it is always well to feed out what kind of bulls have been generally used in the different localities. Where dairy bulls have been extensively used, one will hunt with the best success for dairy cows of value.

The inexperienced dairyman, when he undertakes to buy cows, is very often deceived. He has, in many cases, to pay dearly in the transaction. This may be in paying overvalue for a useful cow, or, what is more expensive still, for cows that prove to be very unproductive. Such cows not only give a small flow of milk, but if resold must be dispensed with at a great sacrifice. Some men who are unacquainted with the features possessed by a good milk producer may think that the largest, finest-looking animals are the best to buy, but this is more often untrue than otherwise. They may bring fine, big calves. Indeed, the poor milkers generally produce the largest and handsomest-looking calves. They may be tempting to purchase, but no one should let this be an influence when selecting good milk producers for dairy purposes. Quality and quantity of milk are the most essential points to be considered, and if the cow meets one's desire in these respects her looks do not amount to much, provided she is in good health and not too old. Cows having a handsome appearance may be desirable, but those possessed of the greatest milking capabilities are often unattractive. In starting out to buy cows for the dairy, if one is not a good judge himself it will pay him to enlist the services of a competent man who is enabled to select good milkers.

It is not an easy matter to find such cows, and when found they cost a good deal, but no one should stand back on the price unless it is out of reason, for the purchaser will be well repaid for money thus invested. The scrub cow kept in a dairy is poor property at any price. By breeding the kind of cows wanted, the difficulty in finding animals of the desired sort can be overcome. The better class of cows, in time he overcome. The better class of cows, in time he overcome. The better class of cows, in time he overcome. The better class of cows, in time he overcome.

first calves from such cows will be one-half pure, and, gradually, by the persistent and successive use of such sires, the original native blood will be so diluted by pure blood that the resultant animals will be practically pure-bred.

A cow is not unlike a steam engine in some respects. If a man has use for a steam engine on his farm, it is highly important that he procure a machine that will do the amount of work necessary at the least expense. A boiler that wastes fuel in making steam certainly will not prove economical. The modern engine develops the highest horse-power with the least possible cost of fuel. Only that kind of a boiler pays. In the purchase of a cow for dairy purposes the same idea should be kept in mind. The cow must consume food (fuel) and turn it into a new product which should be profitable. Milk is the product, and if it isn't sufficient in quantity and rich enough in quality to pay for the food eaten by the animal and the work of milking and caring for her, she proves a loss instead of a profit. The scrub cow that bellows loud and eats heartily is like the engine that wastes fuel—makes lots of noise and rattle, consumes heaps of fuel and makes little "steam."

Johnson Co., Ill. W. H. UNDERWOOD.

THE APIARY.

Beekeepers Discuss Co-operation

Co-operation was the dominant note of the annual convention of the Ontario Beekeepers' Association, which met in Toronto Nov. 19-21. The attendance, nearly 300, was the largest on record. The three days' proceedings were replete with interest from start to finish.

The secretary's and other reports showed the association to be flourishing. In three years the membership has increased from less than 600 to nearly 1,500. The honey exchange committee, instituted last year, has placed 75,000 pounds of honey for the members, who otherwise might have found considerable difficulty in obtaining a good market for their surplus.

At the first session, Wednesday morning, after the opening routine business had been conducted, the meeting was thrown open for discussion on co-operation. Before the convention met the members had been notified by the secretary of the proposed plans and were asked to have their opinions ready.

The first matter brought up was the co-operative buying of honey tins. A number of the county secretaries outlined the work as carried on in their respective districts. In general, the plans followed were about the same. The associations got wholesale rates from the can manufacturers. The orders of the members were usually sent to the secretary, who then forwarded them to the company. The separate shipments were then sent out to each member, who was billed separately.

The style of tin best suited to the requirements of the trade was discussed. The lithographed tins are fast replacing the plain ones. They are much more attractive and enticing. The two and one-half and five-pound size is most popular with the consumer.

Tuesday evening a special session was called for the discussion of the co-operative selling of honey. There is a steadily-growing market in the West and to supply it properly more thorough organization of the beekeepers, more particularly the small producers, is needed. The plan brought before the meeting was the formation of a central co-operative association, which would handle the product of the affiliated county associations. The local co-operative associations would each require about \$500 capital, which would be borrowed from the members at six per cent.

The members would bind themselves to market a certain proportion of their crop through the society. The honey would be graded to standard and put up in packages decided upon by the central association. Each local society would notify the central of the amount of honey it had to dispose of and the central would do the selling. This refers only to the general market. Each local would attend to its own local market. A fixed charge would be made by the central for selling and any surplus would be distributed among the members in proportion to the amount of honey they contributed. The capital required by the central would be subscribed by the various county associations.

After some discussion, the meeting decided that some such system of co-operation was advisable and passed a resolution that the matter be gone into thoroughly by a committee.

On Wednesday afternoon, R. E. L. Harkness, Irena, spoke on the duties of a director. He can do much for his district by attending the demonstrations and meetings and disseminating the information thus obtained among his fellow beekeepers. By furthering the interests of the association, he benefits the individuals concerned.

A most interesting discussion of the swarming

problem was led by H. G. Sibbald, Claude. It would be impossible to bring out in a report of this kind all the points mentioned. The same holds true to the other discussions and addresses. The main points in swarm control, however, are: In the spring to give the bees as much room as possible to raise brood in the brood nest and to induce them to keep honey out of the brood nest by putting the super in early. Any honey in the brood chamber is at the top of the combs, as the honey capping protrudes slightly, by shoving the combs close together the bees are induced to remove the honey to the super or outside frames and thus give more room for brood. The colonies should be closely watched and all queen cells kept cut out. As the season advances, the entrance must be enlarged and more ventilation given. By the time a super is one-half to two-thirds full, another should be given. A good general rule is to know the condition of every colony and keep ahead of the bees.

The Thursday session opened with an address on Queen Rearing by J. A. McKinnon, St. Eugene. For profit he believes in rearing yellow bees. The longevity of bees is also important. Mr. McKinnon tested the longevity of different strains of yellow bees by placing a frame of each in a hive of blacks in the fall of the year. By next June the most of them had disappeared, but some held on till July. From this latter strain he bred his queens. A queen whose daughters vary in color should not be bred from. There is a vast difference, too, in the working abilities of different colonies and the best workers should be selected for breeding. Swarming is also undoubtedly hereditary. It is well to let the weaker colonies raise the new queens and allow the stronger ones to harvest the crop. Various methods of introducing the new queen to the hive were discussed. The Miller, or smoke method, is one which is being largely adopted. The bees are given a little smoke, the queen is allowed to run into the entrance, the entrance closed for a few minutes, then opened and a little more smoke given. At dusk, when the bees are quitting work, is the best time at which to introduce by this method.

S. D. House, a visitor from Cornwall, N. Y., brought out an interesting point, which was, not to meddle with the hive after the new queen had been given. Another good method is to place the queen in a wire-cloth cage in the hive, leave her in the cage and then liberate her.

At the afternoon session addresses were delivered by Dr. G. C. Creelman, of the Ontario Agricultural College, and E. R. Root, Medina, Ohio. In speaking of the work which the O. A. C. is doing, Dr. Creelman credited its success to the quality of the farming community of Ontario. He outlined the wonderful development in crop production which Ontario has undergone, and also the way in which the college is furthering the agricultural and beekeeping interests.

Mr. Root told of an interesting experiment which he is now conducting. He is sending 300 colonies of bees to Florida for the winter. His capital, as he terms them, will thus be working nearly the whole year round, instead of five or six months only. He will save the expense of winter feeding and at the same time hopes to double the number of colonies. There are no doubt many difficulties in the way, and Mr. Root's experiment will be followed with interest.

Several resolutions were passed by the convention. A message of condolence to the widow of the late Wm. MacEvoy, one of Ontario's best-known beekeepers, and the originator of the well-known MacEvoy treatment for foul brood. A resolution to the Department at Toronto, asking that all spraying of fruit trees be prohibited while in bloom, and that the penalty be a minimum of \$25 and a maximum of \$50. That an endeavor be made by the association to obtain a perfect honey pail. That the Department at Toronto be asked to increase the number of districts for foul-brood inspection and that more local men be appointed, one at least in each municipality.

The last-mentioned resolution was passed after considerable thought and discussion. It was felt that the present system is inadequate. By appointing local men, more inspectors could be obtained for the same money, as travelling expenses would be reduced. Another strongly-felt need was better inspection of bees that are imported. Large numbers of bees are coming into the country, which are liable to be diseased, and little or no inspecting is done.

The officers for the coming year are: President, J. A. Byer, Mount Joy; first vice-president, F. W. Krouse, Guelph; second vice-president, J. Armstrong, Chesapeake; secretary-treasurer, Morley Pettit, O. A. C., Guelph; directors, the above named officers and the following: R. E. L. Harkness, Irena; A. McTavish, Carleton Place; M. B. Holmes, Athens; R. Lowey, Woodrus; W. W. Webster, Little Britain; J. Newton, Thamesford; Jacob Haberer, Zurich; Miss E. Robinson, Denfield; Denis Nolan, Newton Robinson.

HORTICULTURE.

Healthy Seed Potatoes.

Not only do unhealthy tubers decrease the yield of potatoes, but they may start an epidemic in the field that will result in a total loss of the season's crop when the weather is favorable for the growth of disease. New York State alone has reported a loss of \$10,000,000 in one year due to the ravages of late blight, while in the United States the toll of this disease has amounted to \$36,000,000 in one season's crop. Had the loss in Canada during the summer of 1912 been estimated its enormity would have been appalling. Much of this waste can, however, be prevented by planting healthy tubers and spraying with Bordeaux mixture.

Most growers know the peculiar odor emanating from a field of potatoes affected with late blight and can easily discern the wilted, spongy condition of the leaf, but as a preventive measure it is more important still to be able to identify the disease in the tuber itself, for there it winters and is conveyed to the field again in the spring. The affected tuber shows a surface slightly depressed, while the healthy, white color of the flesh is changed to a dirty brown. If the soil is dry, dry rot results, but if wet the tuber decays and becomes a slimy, offensive smelling mass. The disease continues after they are put into storage, and those showing only a slight discoloration in the field may later be entirely destroyed.

Bordeaux mixture sprayed on to the plants during July and August will prevent the development of the disease, but it is wise to select seed in the spring that show no signs of an unhealthy color and thus forestall the introduction into the field of the disease to await only favorable climatic conditions for a hasty development.

Some varieties show more resistance than others, and amongst the resistant kinds may be mentioned Carmen No. 3, Rural New Yorker, Rural Blush, Green Mountain, Delaware and White Beauty. No variety is altogether immune from the disease, and unless precautions are taken, any kind is liable to fall a victim to the blight and rot, but if healthy seed is planted and the plants sprayed and a rotation followed, much can be done to allay destruction from this disease.

Valuable Premiums Offered.

The attention of our readers is directed to the full page announcement on page 2121 in this issue of a series of splendid premiums, which present subscribers may secure by obtaining new subscribers to "The Farmer's Advocate and Home Magazine." The articles are all extra good value, and readers will be pleased to receive such excellent remuneration for the little time required to obtain the necessary number of new subscribers. See page 2121.

Growing Canning Tomatoes.

Since the advent of the canning factory there has grown up an industry of vast importance to the country and profit to the farmer who may be favorably located, relative to soil and proximity to the receiving station. Distance, however, is an important factor in all farm operations and one mile of poor roads will often determine whether a farm may be devoted to extensive cropping or be obliged to resort to a system of culture where the disadvantage of remoteness is to a certain extent overcome.

What distance will launch a farm outside the realm of profitable canning-crop production is dependent largely upon the character of the roads and facilities for handling the output, but, as a general thing, any distance beyond four miles from the factory will cut heavily into the profits of the crop.

Dealing particularly with tomatoes, which are a heavy part of the factory consumption, the character of soil does not factor as much as is generally believed. A sandy loam containing considerable humus and underlaid by a clay subsoil, well drained, is desirable, but with the proper management a great variety of soils may be brought into use for the production of tomatoes. C. A. McCue and W. C. Pelton, of the Delaware Experiment Station, have just completed an exhaustive work on tomato growing, which says: "The tomato needs a large quantity of ready available plant food during the fore part of the growing season and a soil condition that will keep the plants well supplied with moisture, especially during the latter part of the season."

Some prefer to have a crop of clover precede the tomato crop, but in this case often the plants remain green too long in the fall. This may be overcome by intensive spring cultivation and proper fertilizers. Clover, corn, tomatoes and grain make a good rotation for the tomato field, but clover, tomatoes and grain give equally good results.

Potash is the element of soil fertility most heavily drawn on by the crop, but nitrogen is also used, while phosphoric acid is least required. A ten-ton crop of tomatoes, according to Voorhees, will contain 25 pounds of nitrogen, 13.6 pounds of phosphoric acid and 51.6 pounds of potash. This may be returned to the soil in 500 pounds of a fertilizer testing 5 per cent. nitrogen, 2½ per cent. phosphoric acid and 11.32 per cent. potash; or in 156 pounds nitrate of soda, 100 pounds superphosphate and 100 pounds muriate of potash.

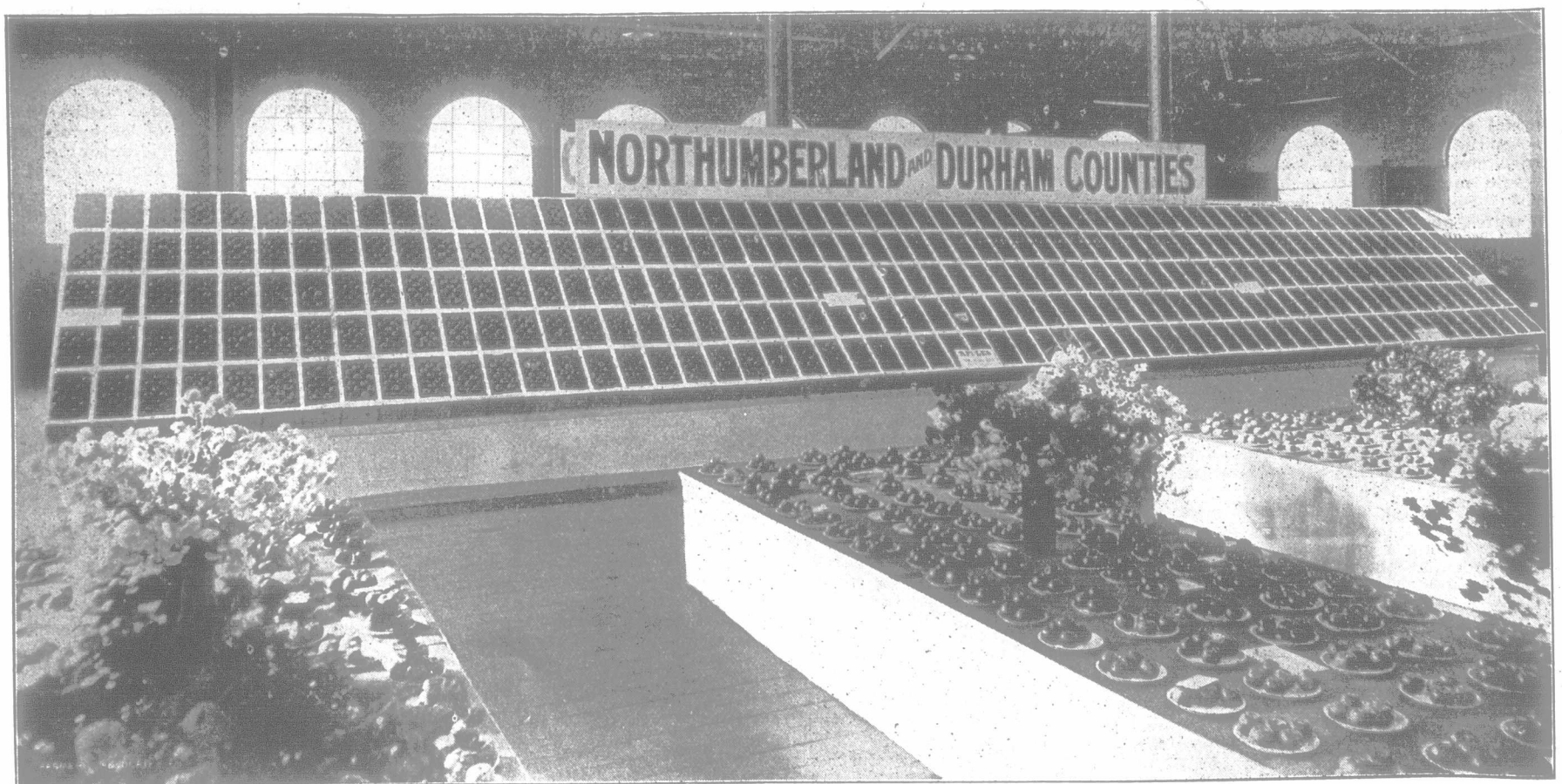
A grower should aim at producing 400 bushels per acre, but often this is not obtained, while in some cases it may be exceeded. With this production, it has been estimated in Prince Edward County, Ontario, that operations per acre will amount to from \$40.00 to \$45.00. This includes rent of land, commercial fertilizer, cost of plants and all the labor connected with preparing the land and growing the crop. As the production increases, so will the cost of growing and har-

vesting. Setting four feet by four feet 2,722 plants per acre are required, and the character of the plants may easily alter the crop to the extent of 100 bushels per acre. The past season has shown blight on weak plants, while plants beside them, strong when set out, were entirely free. Too large plants are not desirable. The heavy crops come from medium-sized plants, rugged and strong. A factor in crop production is the origin of the plant or the seed itself. Indiscriminate selection of seed will never adapt a strain or variety to any particular section. Maturity has been hastened from a week to ten days by selecting each year ideal fruit, early matured on prolific plants. If this suggestion be followed annually the yield may be increased and maturity hastened. The variety rests largely with the factory. They desire smooth fruit and maturing over a certain period. The grower looks for yield, in which the rough varieties often exceed the smooth, so a compromise must be arrived at. A report from the State of Delaware has the Stone variety mentioned 235 times, the Paragon 114 times and the Matchless 86 times. The Stone is a good yielder and a good canning tomato, but it is rather late and often caught by frost. Anyone in canning districts can choose from the following kinds with considerable safety: Ignotum, Matchless, Worden, Greater Baltimore, Perfection, Success and Earliana. Chalks Jewel is a good kind, but runs off in size, while the Earliana often runs off in quality of yield after the first pickings.

Success in tomato production depends on cultivation and plants. Climatic conditions often interfere, but healthy plants will ward off attacks of disease and inclement weather. Too much stress cannot be laid on securing the proper plant.

Storing Winter Vegetables.

This season of the year sees the vegetables and fruit all housed for the winter, but the question often arises, how are they best preserved? The old method of pitting keeps garden products fresh and wholesome, but the cellar or basement is more convenient during the winter. Potatoes, or in fact all vegetables, should be allowed some ventilation, and a German publication gives a new method of keeping potatoes from sprouting. The practice has not yet become a custom in Canada, but might be worthy of a trial where only a small quantity is being stored. The idea is to spread them on a layer of coke, which affords ventilation, but it is still further thought that some of the sulphur always present in coke becomes oxidized and the oxides of carbon and sulphur which result permeate the pile of potatoes and, to a certain extent, retard sprouting. When out in bins, a slatted floor, elevating the tubers slightly, maintains a circulation beneficial to the potatoes. They should be kept at a temperature varying from 33 to 35 degrees and in the absence of light. The direct rays of the sun affect the tuber in such a way that an unwhole-



The Best 300-box Apple Exhibit in the Horticultural Department of the New National Exhibition.

some material is produced underneath the skin. This does not injure them for seed, and in fact enhances their value, but for table use such changes should be prevented. The bin should not be over five feet deep and the surroundings dark, cool and well ventilated.

Carrots should be harvested before they are entirely ripe; if dug when still growing the roots will not sprout so badly and have a better texture through the winter. A little loam or sand covering will also help to retain the moisture in the roots and make them more wholesome; this care with a temperature near the freezing point will keep most vegetables in a good, palatable condition for winter table use.

In storing cabbages successfully they should be kept cold and moist and never allowed to become warm or wet. When cabbages are harvested for winter keeping they should never be headed too firmly, but should be just a trifle soft. There is also a difference in varieties, but if the late varieties are sown too early they smother too much for the most successful storing. Cabbages with the outer leaves removed and invested in a layer of sand which partially covers them will retain their moisture and not get too wet.

POULTRY.

An abundance of green feed is one of the roads to success this winter.

Prices at this season emphasize the old adage, "The hen that lays is the hen that pays."

Select for next year's breeding for layers a male bird from a heavy-laying strain of hens.

Do not forget that the hens need drink in winter. Give them sour milk if possible.

Class the pen in which the hens are kept as a "stable" when doing the daily stable cleaning.

Old hens and all cockerels not needed for breeding should be sent to the table as soon as they can be fattened.

Winter Feeding of Laying Hens.

With eggs so scarce and high in price and going higher weekly on the market, the poultry-keeper is naturally much concerned about feeding the flock in the best manner possible to produce most eggs. Besides, feeds are costly and should not be wasted in any way by overfeeding or by injudicious mixing. The poultry during the summer months, under most farm conditions, has had free range and where good summer feeding has been practiced has had in addition to the green food, a liberal amount of mixed grain.

Many farms are not equipped with specially good poultry houses and as a consequence hens are often closely confined during the winter months in small, dark, drafty and unsanitary places, where it is almost impossible, even with the best of feed, to get good results. However, matters may be improved if proper feeding is done. From observations made, we think we can safely say that the mistake which most farmer-poultrymen make is too much of a sameness in the diet of the hens. Many feed mixed grain and may also feed only one kind of grain at a time. This practice is continued daily throughout the winter, giving no variety to the ration. Of necessity the simplest methods and the commonest foods are best to be used for the poultry on the farm. Of the whole grains, wheat, corn, buckwheat, barley and oats are good, providing they are fed in a mixture of two or three, or where all are grown perhaps all might be used.

It is well to have a liberal supply of short litter on the floor of the pen in which the morning feed of these whole grains is scattered and covered with the fork. This induces the hens to get busy and scratch for their feed during the greater part of the forenoon, which gives the exercise so necessary to health and egg production. At noon is a good time to feed some green feed. Most farms have a few mangels or cabbage. These make feed greatly relished by the poultry and help to take the place of the grass and other green feed which they have had access to in the summer. If possible give the hens sour milk or buttermilk to drink. This is available on the greater portion of Canadian farms and can be supplied at very little cost. It takes the place of beef scrap or other forms of meat diet. It is well also to keep a hopper of rolled oats in the pen constantly. It is surprising how much of this material the hens will eat. Where rolled oats are thus fed it is not necessary nor advisable to feed whole oats as a part of the whole-grain ration. It is well to pay particular attention to the green feeds. Hens eat a greater

amount of grass and other such material during the summer than most people suppose. These not being available in the winter, it is naturally necessary to give the poultry something to take their place. Some idea of the value of green food is apparent from the difference between summer and winter-egg production, which is in part due to the difference in amounts of green food available. We have mentioned cabbage and mangels as being good. Turnips, rape, clover hay or clover or alfalfa leaves are also first class. Where the time is taken to do so, green food grown in the form of sprouted oats is good. We would not advise feeding rape too extensively. Frozen cabbage should never be fed. Mangels must also be carefully fed or there is danger of scouring the fowls. It is sometimes necessary where these are being fed to only give them twice a week on this account. Turnips are scarcely as palatable as mangels. When hens get used to them they will eat quite a few. The clover leaves may be fed either steamed or dry and fifty hens will eat anywhere from a gallon to half a bushel daily. This is a form of food which is cheap and easily procurable on most stock farms where clover is grown for winter-stock feeding. The hens require variety.

The old methods, so common, of the first thing in the morning throwing down on the bare floor or ground, as the case may be, whole grain or a pailful of oats or barley, letting the hens shift for themselves for the remainder of their required food, and compelling them to get what drink they want from a snowbank, can never lead to successful winter-egg production, and it is the winter egg that the poultryman is after. Get a good-laying strain and take pains with their housing and feeding and share in the profits being made from the high price of strictly-fresh eggs on our markets from early October until well on towards spring.

FARM BULLETIN.

Good Roads.

By Peter McArthur.

I am billed to make a speech to-night on the Good Roads Question, but I am not going to make it. It is a dark night, and the roads are so bad that I do not care to undertake a long drive over them. There is a moral in that situation that you can work out for yourself. But the bad roads are not entirely to blame for my absence from the meeting. In the first place I did not promise to attend, and in the second place speech making is not in my line. I have not yet learned to think on my feet, and every few minutes I get into a panic because I have started on an ambitious sentence, and haven't the faintest idea where or how I am going to end it. When I have anything to say on a public question I prefer saying it with my typewriter, and as practically all the farmers who are at that meeting to-night are subscribers to "The Farmer's Advocate", I can give them my views more easily by writing an article than if I were to go and stand and stammer ahead of them for half an hour or an hour.

The question of good roads has been of interest to me ever since we came to the country. Before leaving the city I accepted an assignment from a leading paper to conduct a vigorous good roads campaign. I was to write editorials on the subject, and contribute articles to the news columns. By way of preparation I interviewed A. W. Campbell, who, at that time, had charge of the good roads movement for the Ontario Government. From him I learned all the arguments in favor of good roads, secured a vast mass of statistics and files of the leading good-roads journals published in various parts of the world. After reading and digesting this mass of material, I opened the campaign with a leading editorial that fairly hollered for good roads. Then I attended a good-roads convention in Toronto and listened to much wisdom on the subject. For some weeks I kept on pouring in eager, argumentative editorials and trying to get some response from the public, but no one stirred a leaf. I don't think I ever dealt with a question that seemed of so little interest to the public in general. While this was all going on we moved to the country where the bad roads are, and I tried to find out what was the matter with my campaign. Every one I talked with agreed that we should have good roads, but nothing was being done. After keeping up the clamor for a few weeks longer I finally wrote to the editor and gave up my assignment. I could not see that I was accomplishing anything or was likely to accomplish anything, and so what was the use? Since then I have been trying in one way or another to find out what is the matter with the good-roads movement in the country, and I have hit on a few things that may be worth mentioning.

At the bottom of the whole trouble is the

scarcity of labor. When farmers are not able to get the work done on their own farms you can hardly expect them to do much work on the roads. Work, like charity, begins at home, and most men have more to do at home than they can attend to. The same difficulty applies when it comes to contributing money for road-building. A man may be entirely convinced that better roads would be a good thing for him as well as for the country, but if he has to put off building a silo or putting a cement foundation under his barn because he cannot quite afford these improvements, he is not likely to be eager to contribute money for the roads. It is quite natural that a man should want to make all the necessary improvements on his farm before doing much on the approaches to it. Up to the present I have not met anyone who has denied that good roads would be valuable, but they are not ready to make a start. And now the question has been very much complicated by the great increase in automobile traffic. All the fairly good roads in the country are so overrun by automobiles that the farmers can hardly use them. I am told that during the summer months an automobile passes on the Longwoods Road every five minutes during the daytime. As many of these machines travel at a recklessly high rate of speed, they not only frighten the horses engaged in teaming produce to the markets, but wear out the road and cover the nearby vegetation with a destructive coating of dust. The farmers living along public roads of this kind are not enthusiastic about making improvements that will be almost entirely for the benefit of the automobile public. Instead, they feel that they should be awarded damages for the injury that is being done to their business and their crops. Of course the automobile has come to stay, but it has not yet been determined how to make the owners contribute their fair share to the upkeep of the roads, and some way must be found of making them less of a nuisance to the farming community than they are at present. Many times during the summer I see automobiles passing on the road at a higher rate of speed than is made by the express trains on the railway. It is not at all surprising that horses are frightened by these runaway locomotives. I freely admit that I am often thoroughly scared myself when I see one of those speed demons approaching, and if there is a lane handy I never fail to turn to get out of the way. After an experience of that kind I do not feel moved to sit down and write a vigorous article in favor of the good-roads movement.

But we must have good roads. The progress of the country demands it, and as part of the economy of marketing produce, good roads are indispensable. It seems to me, however, that a beginning should be made with a few of the more pressing aspects of the problem. In the first place the automobile nuisance must be brought under control. As most of the damage is done by cars that go touring through the country, it strikes me that every county might do well to establish toll gates at important points, such as bridges over rivers, so that these transients could be made to contribute their due share. We have little difficulty with the locally owned automobiles. The people in the smaller towns who have cars are forced to show ordinary courtesy when on the road near home, for we all know them and can make things hot for them if they frighten our horses into trying to climb telegraph poles. Probably when they get outside of their circle of acquaintanceship they scorch just as badly as anyone else, but that does not concern us. If toll gates were established and anti-speeding laws rigidly enforced we might be able to get along with the automobiles, though I am afraid it will be some time before we learn to regard them with affection.

Another opportunity for improvement is to be found in the streets of the country towns, where the farmers haul their products for shipment. In many cases these streets are in a much worse condition than the country roads, and many a farmer making a haul of several miles is obliged to take a small load, because he knows that the last half mile in reaching the station is so bad that he can hardly get over it. In this vicinity we have examples of both kinds of village streets. One village is on a country road made of crushed stone that will carry any load in any kind of weather. Other villages have gravel streets that under heavy traffic in wet weather become quagmires. From what I have been able to learn, the stores in the village with the stone road have found a constant increase of business since the road was built, while the merchants and citizens of the villages with the poor streets are getting more bilious and despondent every day. It strikes me that one of the wisest movements we could have would be for the perfection of the main streets of our market towns. They usually give out long before the country roads and make teaming a difficulty.

In attacking the good-roads problem in the country, the first thing that needs to be done is

to get people to take statute labor seriously. At the present time statute labor is largely a farce. Instead of doing several days of honest work on the roads, people get jobs from the path-master to cut weeds. Once I put in two days of statute labor by cutting weeds and thistles for three hours, and I didn't work hard either. A. W. Campbell told me that if all the statute labor in the country were done away with, and the people were taxed a dollar a day for the time they are usually supposed to serve, and if the money so collected were wisely expended, we could have good roads through Ontario in a very few years. The conclusion I have arrived at is that more can be done to get the good-roads movement progressing satisfactorily by regulating the automobile traffic, improving village streets, and approaches to the railway stations, and by putting steam into the work of doing statute labor, than in any other way. After these things have been attended to we would be in a proper position to take up country road systems, through trunk lines, and all the great road-making enterprises that are now being advocated, largely by the users of automobiles.

Progress in Essex County.

Editor "The Farmer's Advocate":

The reason for non-appearance of news from the Western Peninsula during the past few months was not lack of material, but owing rather to the abundance thereof and the inability of the writer to determine what ought to be entered or eliminated. The era of prosperity has not reached its finality, but still continues to advance with steady march. With few exceptions every line of husbandry has given ample returns and in certain cases remunerations unexpected and unprecedented have been realized. While there are a number who complain and find fault with Providence for failure to furnish sufficient moisture in certain districts (and these grumblers are to be found everywhere), nevertheless reports indicate that 1913 comes not one whit behind any former year in amount paid for farm produce all over our county. While there has not been as large a yield per acre as some preceding years, yet the increase in prices has more than over-balanced any shortage. Our most southern point has come in for a larger share of monies received, as also attracting increased attention on the part of would-be speculators. Onion growing proved exceedingly remunerative, small fortunes being made by some who were not frightened by the disaster of 1912. One man is credited with receiving about \$10,000 as his share of the spoils from a 65-acre onion patch. Peaches, although an exceedingly large crop, were disposed of without any great difficulty, young orchards, i. e., three and four years old, returning from two to three hundred dollars per acre, while older sections gave much larger returns. Tomatoes were even a greater success than former years, freedom from frost enabling the growers to continue picking and delivering until factories closed on October 15th, but even then there were many bushels which might have been gathered had any provision been made for utilizing same. Corn likewise fully matured and so far as yield and sample are concerned may be classed No. 1. Climatic conditions have somewhat retarded operations in the field, so that considerable husking is still to be done. The demand for feed is not great, owing largely to decrease in numbers of stock, caused largely by removal of the tariff on meats. This action of the United States Government means thousands of dollars to Essex in poultry alone, as it gives us freer access to Detroit markets. The good roads project which is being discussed at present is bringing out a diversity of opinions and owing to failure on the part of projectors to give a proper elucidation of their proposition is not receiving the endorsement of many who otherwise might support the same. There are certain objectionable features in connection with the proposed routes, as well as the financing, which many feel require careful consideration before the project becomes an established fact. The idea of a belt line skirting largely the shores of Lakes Erie and St. Clair, with a few spurs thrown in, does not meet with the views of many who expect to utilize the road when completed. Why a road which is supposed to benefit those who require to market produce at a season of the year when good roads are below par should be built at the extreme north and south of our county, leaving out of consideration a large section of our corn and pork-producing farmers, must be answered satisfactorily before they can be expected to lend themselves to any such scheme. Rumor also states that in relation to the financing a certain amount (and some say all) of money raised from incorporated towns and villages is to be rebated, leaving the burden entirely upon the rural districts. Furthermore, reports have it that taxation is to be general and not distributed according to benefit received. As a supporter of "good roads," your correspondent would favor very much a discussion of

the proposed scheme from the public platform, so that electors may be in a position to vote intelligently.
A. E.
Essex Co., Ontario.



His Eye on the Future.

The prize-winning wheat, at the Dry-farming Congress at Tulsa, owned by Paul Gerlach, of Allan, Sask., is being sold to the highest bidders in pint quantities with not more than two pints to one man. This Marquis wheat, as shown, weighed 71 pounds to the measured bushel. It became the property of the Rumely Co., who donated the separator to the winner, but was turned over to the International Dry-farming Congress with the request that it be divided into small lots and auctioned to the highest bidders, the proceeds to go toward the support of the Congress. The auction will be conducted from the offices of the Congress. The prize-bushel has been divided into 64 lots. No price has been set by the Congress on the samples. Applications for the wheat, accompanied by certified checks or postal orders, will be received by the Congress up to January 1, 1914. On that date the applications will be opened and the 64 men who have sent the largest sums of money will each be mailed, at once, a carefully packed pint of the wheat, together with a certificate showing that the wheat is a part of the prize-winning bushel. All money sent by persons whose bids are not high enough will be promptly returned.

We are informed by the Veterinary Director General, Dr. F. Torrance, that the following Ministerial Order, No. 42, relating to the entry into Canada of United States cattle for exhibition purposes has been signed, to take effect from 1st January, 1914: "On and after January 1st, 1914, all cattle over six months old entering Canada from the United States for exhibition purposes shall be accompanied by a certificate signed by a Veterinary Inspector of the United States Bureau of Animal Industry, or a certificate from a reputable veterinarian, endorsed by a Veterinary Inspector of the United States Bureau of Animal Industry, stating that they have successfully passed the tuberculin test within the six months preceding entry to Canada, and an affidavit or solemn declaration of the owner or importer that the said certificate refers to the cattle offered for entry and to no other."

Artificial Fertilizers, Their Nature and Use—II.

By B. Leslie Emslie, C. D. A., P. A. S. I., F. C. S.

During the remarkable era of progress which followed the accession of Elizabeth to the throne of England, particularly after the defeat of the Spanish Armada had imparted a greater sense of security to the people, the arts and sciences received a wonderful stimulus, and it is recorded that farmers at that time began to devote more attention to the conservation and application of barnyard manure. A firm belief in the virtues of manure, coupled with a commendable faith in a beneficent Providence, promoted a Yorkshire farmer of a less remote period, when questioned as to the cause of his luxuriant crops, to reply "Muck an' (pointing upward) Him."

COMPOSITION OF BARNYARD MANURE.

The nature of the live stock, by which it has been produced, the kind and quantity of the litter employed and the manner in which it is subsequently handled, are all determining factors in the composition of manure. Milch cows and young, growing animals utilize large quantities of nitrogen and phosphoric acid in the production of milk and in building up the bone and muscle of the body, so that the manure from them is much poorer in the elements of fertility than that from adult or fattening animals. One ton of average, well-made barnyard manure may contain 12 lbs. nitrogen, seven lbs. phosphoric acid and ten lbs. potash, or as much nitrogen as is contained in 75 lbs. nitrate of soda, as much phosphoric acid as is contained in 40 lbs. acid phosphate, and as much potash as is contained in 20 lbs. muriate of potash. Since the most valuable part of the fertilizing ingredients is in the liquid portion of the manure, considerable loss usually occurs through leaching and where extreme carelessness prevails, the manure which is usually spread on the land may represent little more than rotting straw.

CONSERVING FERTILITY IN MANURE.

Horse manure contains less liquid than cow manure, and being more porous, admits air freely, which causes rapid fermentation, resulting in the loss of nitrogen in various forms. To prevent this the horse and cow manure should be mixed together, and the heap kept consolidated by occasional tramping with stock. Covering the heap with loose earth in mild weather is also recommended. Loss by leaching may be partially or almost entirely obviated by roofing over, or, if this is not convenient, the manure heap should be situated on a clay or other impervious bottom, or a floor of concrete may be laid. Probably the greatest efficacy is secured when the manure is drawn out and spread on the field during the winter.

VALUE OF BARNYARD MANURE.

It might seem outside the scope of the present treatise to dwell at length on this subject, but it must be remembered that fertilizers are more often considered as supplements to, than as substitutes for, manure. Moreover, it is desirable that farmers should appreciate the real value of the latter, since the tendency amongst some is to regard it as a by-product, which costs almost nothing to produce, instead of realizing that it represents part of the active fertility, drawn from the soil and returnable thereto with interest. Certain men, who ought to be better informed, when calculating the cost of the manure employed in their experimental work, value it at the absurdly low figure of 35 cents per ton. The fact that in a few localities (from city stables, etc.) it may be obtained at that price, exclusive of cartage costs, does not warrant the assumption that the figure mentioned may be taken as a basis of calculation for general application. The price of average barn-yard manure is none too high when placed at \$1.50 per ton, and is often estimated much higher. The chief value of manure undoubtedly lies in its physical action, whereby a stiff clay soil is rendered more open in texture, and a light, sandy soil is bound together and made more retentive of moisture. Manure also provides the soil with humus, this furnishing the favorable bacteria with a suitable medium for their development. Generally speaking, the well-rotted manure ought to be applied to the lighter, and the more strawy material to the heavier soils, the reason for this being obvious.

FERTILIZERS AS SUPPLEMENTS TO MANURE.

Crops to which a heavy application of manure has been applied usually display a rank growth of coarse foliage, while the fruit of reproductive part of the plants remains immature and undeveloped. This is due to an excessive supply of nitrogen, the predominating ingredient in barnyard manure. Bearing in mind the composition of average manure and considering that crops, generally speaking, demand approximately three times as much phosphoric acid and potash as they do nitrogen, the importance of supplementing the manure with fertilizers, to secure the proper balance of ingredients, can be readily appreciated. It is a common delusion that the role of fertilizers is to supplant barn-yard

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manure, and accordingly we find experimenters comparing the results of an application of 20 tons barn-yard manure per acre against those from a small, usually inadequate, quantity of artificial fertilizers, and when they value the manure at 35 cents per ton they have done all in their power towards effectually barring the chances of the fertilizers to make a creditable showing. Different results would, however, be obtained by testing the 20 tons of manure against ten tons, supplemented with a suitably balanced fertilizer.

CHARACTER OF CROP AS AFFECTING FERTILIZER REQUIREMENTS.

The nature of the crop is usually the principal factor in deciding the fertilizer to be applied. As one kind of animal differs from another in respect to its requirements and uses of the different elements of nutrition, so one kind of plant differs from another in respect to its demands upon the various fertilizer ingredients in the soil. Crops having a short growing period will naturally require larger amounts of readily available plant food than those whose growth is more protracted. The benefits of a crop rotation are due to the fact that crops differ in their requirements. A clover crop will chiefly draw on the soil's available supply of phosphoric acid and potash, but has no difficulty in obtaining nitrogen, since clover belongs to an order of plants (leguminosae), which can assimilate the free nitrogen of the atmosphere with the aid of certain bacteria, living in little nodules on the roots. Clover not only secures all the nitrogen necessary to its own growth, but leaves in the soil, in the remains of its deeply ramifying roots, a valuable supply of nitrogen for the succeeding crops. Now, wheat is a crop, which requires a large supply of nitrogen, so clover is obviously a desirable precursor for wheat. Turnips have most difficulty in obtaining their phosphoric acid and, therefore, readily respond to fertilizers, containing a high percentage of that ingredient, while potatoes, on the other hand, require a predominance of potash in the fertilizer. It can thus be seen that a fertilizer, adapted to the requirements of one crop, may be unsuitable for application to another.

CHARACTER OF SOIL AS AFFECTING FERTILIZER REQUIREMENTS.

Muck soils present an instance where the nature of the crop is of secondary consideration in determining the fertilizer requirements. Muck, consisting as it does of a mass of decaying vegetation, with but a small admixture of mineral matter, is invariably rich in nitrogen and deficient in potash, which accounts for the greatly increased yields often obtained from the use of potash alone on these soils. A light, sandy soil will naturally be poor, in all elements of fertility, but especially poor in potash. On the other hand, a clay soil will be comparatively rich in potash, although the latter is largely present in unavailable compounds. The nature of the sub-soil, as well as previous treatment of the soil, probably account for the fact that soils of apparently the same nature in different localities respond differently to similar fertilizer treatment, which emphasizes the desirability of every farmer experimenting for himself.

FUNCTIONS OF THE FERTILIZING INGREDIENTS.

Without going into unnecessary detail, the functions may be briefly stated as follows:

Nitrogen promotes the growth of stem and leaf, and gives bulk to the crop. It is, therefore, an important constituent of a fertilizer for cabbage or other leafy crop.

Phosphoric acid chiefly influences the root development in the early stages and the seed formation during the final stages of growth, which explains its importance for turnips and grain.

Potash is essential to the formation of carbohydrates, which comprise the starches of potatoes, grains, etc., the sugars or fruits and vegetables and the fibrous matter in stem and leaf.

Lime enters largely into the composition of the plant, but, as already noted, is usually present in sufficient quantity as a plant food, the chief object of its application to the soil being the improvement in texture and counteraction of the acidity in certain soils. Lime also hastens the consumption of the "available" potash in soils, but does not break down the unavailable compounds. Its indiscriminate use gave rise to the old adage, "Lime and liming without manure makes both farm and farmer poor."

LIEBIG'S LAW OF MINIMUM.

By means of a series of pot experiments Liebig of Germany demonstrated the fact that certain substances are essential to plant nutrition, and that one element cannot perform the functions of another, which may be lacking. On this discovery he based his famous "law of minimum" viz., "The plant food substance present in the soil in smallest quantity will determine the amount of the crop, which can be grown therefrom." Another way of expressing the above mentioned law is, "The strength of a chain is that of its weakest link." For instance, if the soil be deficient in either one of the three essen-

tials (nitrogen, phosphoric acid or potash) then no matter how much of the two ingredients are applied, maximum yields could not be obtained, since this is only possible when the plant's appetite for each essential has been satisfied.

In the next article the sources of the various fertilizing materials will be dealt with.

(To be continued.)

Transportation and Canadian Milling.

The Toronto Globe is on the right track in further reminding those at the head of the country's affairs how adversely ocean transportation charges may affect the milling industry by discrimination against flour in favor of wheat shipment. Representative millers have pointed out that while the difference between wheat and flour rates for many years was about two cents per hundredweight, various advances and changes have brought the difference to between five and twelve cents in favor of the raw material, which the shipping interests desire for ocean boat ballast. Flour shipments are in the interest of Canadian milling, and also advantageous to agriculture by increasing the available supplies of bran, shorts and other offal required in dairy farming and live-stock feeding generally. Ample and reasonably priced materials for these purposes are factors in keeping down the cost of production, and ultimately the cost of meats and dairy products to the consumer. It, therefore, becomes necessary to exercise public authority, and provide such transport facilities as will effect the greatest good to the most people.

Death of John Ira Flatt.

The death, in his 81st year, of John Ira Flatt occurred at his home, Hamilton, Ont., on November 26th, 1913, after an illness of three weeks. Mr. Flatt had an eventful and successful career. His father came to Canada from Orkney as an employee of the Hudson Bay Company. Deceased started out in life in this country by working on the farm of an uncle. In a few years he was able to purchase the farm, which was heavily wooded and gave him a start in the lumber business, in which he was very successful. He took an active part in public life, and was exceedingly popular with the community. After serving in the Municipal Council, rising to the position of Warden, he was later chosen to represent the riding of North Wentworth in the Provincial Parliament. Mr. Flatt was a very genial and honorable gentleman, and by judicious management became exceedingly wealthy. He is survived by two sons, W. D. Flatt, Hamilton, and D. C. Flatt, Millgrove, and by four married daughters.

How the Public is Fleeced.

Some idea of the ways in which promoters and heads of large companies may and do juggle the funds placed with them as stock was brought to light last week in the Government investigation into the affairs of the defunct Union Life Company. A long chain of corporations was controlled by the president of the Union Life and used by him to finance the latter company, which is now in liquidation, and the estimated loss is \$1,200,000. Stockholders are not expected to receive any returns.

The National Agency Company, the parent company of the Union Life, and which is now in liquidation, was one of the chain, and is not likely to pay anything to creditors, debenture holders or shareholders. The National Land, Fruit and Packing Company is now in liquidation, with an attempt being made to reorganize, and unless this is successful the loss will be almost \$500,000. The Imperial Loan Company, in which application has now been made for winding up; the Canadian Provident Investment Co.; still operating but owing the Union Life \$340,000; the Home Life Insurance Company, whose business was recently reimbursed by the Sun Life; the Stratford Building & Loan Association, still in business with debentures worth \$200,000 held by the Union Life, but this company has small tangible assets; the Agency Land and Security Company is still in business, as is also the National Credit Clearing Company, whose assets are said to consist of shares of the chain of corporations.

The Union Life loaned \$340,000 to the Canada Provident Investment Company, \$9,700 to the National Credit Clearing Company, \$81,500 to the Imperial Loan and \$65,000 to the National Land, Fruit & Packing Company. The National Agency Company, managing agent of the Union Life, received over \$1,000,000 from the people and \$860,000 of this was put in the Union Life and lost. The National Credit & Clearing Company's capital stock of \$50,000 was paid by a transfer of business which involved no cash. This company assisted in a transaction involving the purchase of the Home Life stock by the Canada Provident Investment Company and secured a commission of \$25,000, which was

at once put to the use of securing control of the Canada Provident Investment. It is thus seen that the money received from the Canada Provident was used to buy Canada Provident stock. The Agency Land & Securities Company was capitalized at \$50,000, paid by transferring to the company the stock of the National Credit Clearing Company which later promoted the National Land, Fruit & Packing Company getting \$1,215,000 capital stock, of which \$729,000 was sold to the Canada Provident. The first payment made by the Canada Provident on the stock was \$50,000 out of the \$340,000 borrowed from the Union Life. The dealing back and forth between these companies in shares was skillfully managed to keep all going. Of the stock of the National Land, Fruit & Packing Company \$729,000 was preferred and \$486,000 common. The Agency Land & Securities Company transferred to it options on real estate, liens, etc., and debentures for \$373,000, and got in return all the capital stock and an agreement to pay \$135,000 for ten years. The company operated for two years and lost between \$450,000 and \$500,000.

Many other transactions were recorded at the investigation, all going to show how funds were manipulated to float and operate a chain of companies, most of which have come to a disastrous end. People's money is juggled by promoters and is often lost. There is a note of warning in this. And this is not all. It was brought out that a certain prospectus of one of the companies was misleading, that a trade journal in Great Britain had been paid two thousand pounds to publish favorable articles to deceive others and that certain prominent men in the Old Land received handsome money presents for their assistance in floating a stock issue. Such means of obtaining funds cannot be too severely criticized, and those who lent their services, if they did so knowingly, are the worst kind of deceivers.

A Few British Live Stock Notes.

An outbreak of foot-and-mouth disease in Sussex, has for the moment put a damper upon English live stock exportation, which has rejoiced in a remarkable trade since the ports of the world were declared opened to us a few months ago. Luckily the attack is but a mild one.

I have been making out a little bit of the chief winners of honors at our International Horse Show, and I find the few Canadians who exhibit there have done very well. For instance:

- Hon. Adam Beck:—1913, £194.14.4; 1909, £20; 1907, £75.
- Hon. Clifford Sifton:—1913, £158.11.5; 1912, £332.0.6; 1911, £279.3.4.
- W. D. Sifton:—1912, £120; 1910, £16.5.
- J. W. Sifton:—1911, £13.6.8.
- Clifford Sifton, junior:—1912, £20.16.8; 1911, £5.

But the American harness horsemen have done even better. Here is Judge W. H. Moore's little haul since he started coming over to London: 1909, £948; 1910, £1,332.10; 1911, £1,265; 1912, £910; 1913, £840. A total of £5,245.10s.

Walter Winans has been in the prize-list every year since the International opened, its regal doors, and in seven efforts his horses (both jumpers and harness horses) have won for him £6,314 15s. as follows: 1907, £1,207.10; 1908, £1,058; 1909, £1,194.10; 1910, £1,365.10; 1911, £702.10; 1912, £398; 1913, £398.15. A total of £6,314 15s.

A. J. Vanderbilt's figures read thus: 1907, £810; 1909, £197; 1910, £160; 1911, £10; 1912, £30; 1913, £195.

In the seven years William Foster's Hackney ponies have won £2,110; Miss Ella S. Ross, black harness horses, £1,355; Mr. Edward Colston's blacks, £753, and Mr. Paul Hoffman's harness exhibits, £370. These good people have never yet failed to be in the prize money at Olympia. C. W. Watson (U. S. A.) came and took £605 out of the coffers in 1909, and for-eigners from all quarters have in their day lifted their "little lot" from the old city.

William Meharey, Russell, Ontario, has just secured a large shipment of Clydesdale fillies from Messrs Montgomery, Scottish breeders. They numbered 24 head, and, with two exceptions, were all two-year-olds. The bulk of them were purchased in Aberdeenshire and were well-ribbed, useful, thick sorts, which should make very useful brood mares on your side of the world. Among them figure the produce of the Toronto champion, Gleniffer, a noted prize winner in Scotland when a yearling, and also as a two-year-old, when he was an unnamed "Sir Ronald" colt. The others in this fine shipment are by the well-bred horse Crossrigg, the premium horse Imperialist, the Royal Northern prize horse, Chattan's Treasure, the Solway district premium horse Dignity, and others of repute.

In the whole of 1913, however, 6,031 head of Shorthorns were submitted for sale in Great Britain, and changed hands at an average of

\$208 apiece. This figure beats all years for about a decade. Eighty head only were exported to U. S. A.
In 1913 U. S. A. bought but 50 head of Hereford cattle. South America took 194 head.
G. T. BURROWS.

Texas Students the Best Judges.

An editorial representative of "The Farmer's Advocate", now at the International Live-Stock Exposition, in Chicago, wires as we go to press that of the twelve teams of five men each from various agricultural colleges in Canada and the United States entered in the live-stock judging

competition, held annually in connection with that Exposition, Texas was the winner. Ontario, Manitoba and Macdonald Colleges of Canada were placed in the order named, and sixth, seventh and eighth in the list. Macdonald College scored the highest number of points in horses, making the highest score in any one class of stock. Manitoba was second on beef cattle. An Ontario man was ninth in the total of 60 men competing. The scores follow: Texas, 3,654; Missouri, 3,495; Indiana, 3,494; Ohio, 3,470; Iowa, 3,460; Ontario, 3,413; Manitoba, 3,409; Macdonald, 3,402; Kansas, 3,290; Oklahoma, 3,184; Pennsylvania, 3,177; Nebraska, 3,166.

Western Dairy Convention.

The Convention and Winter Dairy Exhibition of the Dairymen's Association for Western Ontario is billed for Stratford on January 14 and 15, 1914. Frank Hens, the secretary, has procured samples of butter from Alberta, United States, New Zealand and Denmark and will have them open for inspection. This will afford producers an opportunity of studying grades of butter that are noted for their superiority and a chance to compare them with Ontario's best.



A Savings Account As An Investment

A savings account in the Bank of Nova Scotia is an ideal investment for three reasons. First, it has the most important requisite—Safety. Second, it is always readily available in cash. Third, the interest is certain, and, if you do not wish to use it, is compounded for you twice a year.
Capital and Surplus, \$17,000,000.
Total Assets over \$80,000,000.
Independent Outside Audit since 1906.

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Markets.

Toronto.

At the Union Stock-yards, West Toronto, Monday, December 1st, receipts were 166 cars, comprising 3,205 cattle, 1,712 hogs, 2,456 sheep, and 306 calves. Trade was active in all classes, with choice butcher cattle 25c. per cwt. higher. Choice steers, \$8 to \$8.25; good, \$7.75 to \$8; medium, \$6.50 to \$7; cows, \$3.50 to \$6.75; bulls, \$4.25 to \$7; feeders, \$6 to \$6.75; stockers, \$5 to \$6; milkers and springers, \$6 to \$10.50; sheep, \$4 to \$6; lambs, \$3 to \$8.60; hogs, \$8.60 fed and watered, and \$8.25 f. o. b. cars.

REVIEW OF LAST WEEK'S MARKETS

The total receipts of live stock at the City and Union Stock-yards for the past week were:

	City.	Union.	Total.
Cars	21	437	458
Cattle	556	7,063	7,619
Hogs	83	6,831	6,914
Sheep	215	4,839	5,054
Calves	14	727	741
Horses	—	51	51

The total receipts of live stock at the two markets for the corresponding week of 1912 were:

	City.	Union.	Total.
Cars	65	524	589
Cattle	812	7,872	8,714
Hogs	1,182	9,337	10,519
Sheep	1,861	8,500	10,361
Calves	66	493	559
Horses	2	150	152

The combined receipts of live stock at the two yards for the past week, show a decrease of 131 carloads, 1,095 cattle, 3,605 hogs, 5,307 sheep and lambs, and 101 horses, but an increase of 182

calves, compared with the same week of 1912.

Receipts of live stock, while liberal, considering the season of the year, were not as large as for some weeks past. The quality of the fat cattle, as a rule, was not as good as it has been; that is, there were few good to choice, in comparison with the large number of common and medium classes. There was an active trade for all classes of live stock, and prices were very firm in every department, except for hogs, which were easier. Prices for sheep and lambs were higher. Calves, while no higher, were very firm, and not enough of them to supply the demand. The demand for fresh-milk cows, and forward springers, was as great as ever, and prices were very firm.

Exporters.—Cattle of export quality and weights were very scarce, probably not more than two carloads during the week, and these not as good as usual. They were bought by the local abattoirs, at \$7.75 to \$8 per cwt. One of the largest operators on the market stated that, could he have got a few loads of the right quality, he would have paid \$8.25.

Butchers.—A very few lots of choice butchers' sold at \$7.50 to \$7.75; good, \$7 to \$7.50; medium, \$6.50 to \$6.80; common, \$5.75 to \$6.25; choice cows, \$6 to \$6.50; good cows, \$5.25 to \$5.75; medium cows, \$4.75 to \$5; canners and cutters, \$3 to \$4.50; export bulls of choice quality, sold at \$6.25 to \$7.25; good bulls, \$5 to \$6; bologna bulls, \$4 to \$5. For the canner and cutter classes of cows there has been a strong demand, as there were two American buyers on the market every day, besides the local abattoir buyers.

Stockers and Feeders.—There was an excellent demand all week for stockers and feeders, many American buyers, besides a large number of Ontario farmers, being on hand daily. Feeders, 1,000 to 1,100 lbs., sold at \$6.40 to \$6.80, and in a few instances \$7 was paid; steers, 900 to 1,000 lbs., \$6 to \$6.25; stockers, 500 to 800 lbs., at \$5.25 to \$6; rough, Eastern stockers, of poor quality and off colors, sold at \$4.50 to \$5.

Milkers and Springers.—Choice milkers and forward springers were never in better demand, or ever sold at higher prices. The demand for them came from ocean to ocean; orders coming from British Columbia and Manitoba in the West, and from Montreal and Quebec in the East. Prices ranged from \$65 to \$130 each, the bulk bringing \$70 to \$90 each. One dealer from Quebec paid \$600 for six cows; another dealer paid \$116 each for twelve choice Holstein springers.

Veal Calves.—The supply of choice veal calves did not begin to equal the demand on any day of the week, and prices were never higher or firmer. Choice veals sold at \$9.50 to \$10.50, and in several instances \$11 per cwt. was paid for new-milk-fed veals; good veals sold at \$8 to \$9; medium, \$7 to \$8; common, \$5.50 to \$6.50; rough, Eastern calves, \$4.50 to \$5.25.

Sheep and Lambs.—Prices were higher for sheep and lambs, although there was a fair supply. Sheep, light ewes sold at \$5.50 to \$6; heavy ewes, \$4.25 to \$5; culls and rams, \$3.50 to \$4.50. Lambs sold at \$8.25 to \$8.85.

Hogs.—The bulk of the hogs sold at \$8.50 to \$8.75 fed and watered; \$8.25 to \$8.40 f. o. b. cars, and \$8.75 to \$9 weighed off cars at the market.

BREADSTUFFS.

Wheat.—Ontario, No. 2 red, white or mixed, 80c. to 82c., outside; 85c., track. Toronto; Manitoba No. 1 northern, 92c.; No. 2 northern, 90½c.

Oats.—Ontario, new, white, 33½c. to 34½c., outside; 35½c. to 36c., track. Toronto; Manitoba, No. 2, 39½c.; No. 3, 38½c., lake ports.

Rye.—No. 2, 61c. to 62c., outside.
Peas.—No. 2, 83c. to 85c., outside.
Buckwheat.—No. 2, 52c. to 53c., outside.
Barley.—For malting, 56c. to 58c., outside.
Corn.—American, No. 2 yellow, 78c., Midland; 83c., track, Toronto.
Flour.—Ontario, 90-per-cent. patents, new, \$3.60 to \$3.70, bulk, seaboard. Manitoba flour—Prices at Toronto are: First patents, \$5.50; second patents, \$5; in cotton, 10c. more; strong bakers', \$4.80, in jute.

HAY AND MILLFEED.

Hay.—Baled, car lots, track, Toronto. No. 1, \$14 to \$15.50; No. 2, \$12 to \$13.50.
Straw.—Baled, car lots, track, Toronto. \$8 to \$9.
Bran.—Manitoba bran, \$22 to \$23, in bags, track, Toronto; shorts, \$24 to \$25; Ontario bran, \$22, in bags; shorts, \$24; middlings, \$24.

TORONTO SEED MARKET.

Alsike, No. 1, per bushel, \$8.50 to \$9.25; alsike, No. 2, per bushel, \$7 to \$8; alsike, No. 3, per bushel, \$5 to \$5.50; timothy, No. 1, per bushel, \$2.75 to \$3.25; timothy, No. 2, per bushel, \$2 to \$2.50; red clover, per bushel, \$6.00 to \$7.00.

HIDES AND SKINS.

No. 1 inspected steers and cows, 13c.; No. 2 inspected steers and cows, 12c.; city hides, 14c.; country hides, cured, 13½c.; calf skins, per lb., 16c.; lamb skins and pelts, 60c. to 90c.; horse hair, 35c. to 38c.; horse hides, No. 1, \$3.50 to \$4; tallow, No. 1, per lb., 5½c. to 7c.

FRUITS AND VEGETABLES.

Apples—Spies, No. 1, \$4.50; Greenings, No. 1, \$3.50; Baldwins, No. 1, \$3.50; per basket, 30c. to 60c.; Canadian onions, 75-lb. bags, \$2; cabbages, per case, \$1.25; 50c. to 65c. per dozen; turnips, 40c. per bag; beets, 75c. per bag; carrots, 75c. per bag; parsnips, 80c. per bag; Canadian celery, 40c. per dozen.

COUNTRY PRODUCE.

Butter.—Market about steady. Creamery pounds, 28c. to 31c.; creamery solids, 27c. to 28c.; separator dairy, 27c.; store lots, 20c. to 25c.

Eggs.—New-laid, 40c.; cold-storage selects, 32c. to 33c.; cold storage, 29c.

Cheese.—Old, large, 15c.; twins, 15½c.; per dozen sections, \$2.50 to \$3.

Honey.—Extracted, 10c. to 11c.; combs, new, large, 14c.; twins, 14½c.

Beans.—Imported, hand-picked, \$2.35 per bushel; Canadians, hand-picked, \$2.35, and primes, \$2.

Potatoes.—Ontario potatoes, car lots, track, Toronto, 80c. to 85c.; New Brunswick Delawares, 90c. to 95c. per bag, car lots, track, Toronto.

Poultry.—Receipts of poultry were heavy, the quality being, as a rule, not good. Live prices were: Turkeys, 17c.; geese, 10c.; ducks, 12c.; chickens, 13c.; milk-fed, 15c.; hens, 10c. to 12c. Dressed prices were: Turkeys, 21c.; geese, 12c.; ducks, 15c.; chickens, 15c.; milk-fed, 19c.; hens, 12c. to 13c.

Montreal.

Live Stock.—The market for cattle showed very little change last week. The tone continued firm on all grades, and American demand continued, with the effect that the tendency in prices was rather upwards than downwards. Quality was not quite so good last week, and the top price realized for steers was 7c. per lb.; fine stock sold at 6½c. to 7c.; good at 6c. to 6½c.; medium at 5½c. to 6c., and common down to 4½c. Some common bulls and cows sold as low as 4c. to 5½c. per lb. Ordinary butcher's cattle sold as low as 4c. to 5½c. per lb.

Lambs were in good demand also, and prices were rather firmer than the previous week, being 7½c. to 8c. per lb. Ewe sheep showed little change, being firm, at 4c. per lb. Fewer calves were received on the market, and as a consequence prices were quite firm, being from \$3 to \$6 each for ordinary calves, and up to \$15 for the best. Hogs were in good demand, and sales of selects were made at 9½c. per lb., while straight lots sold at 9¼c., and the rough stuff at 9c., weighed off cars.

Horses.—The absence of snow has not been helpful to the market. It is considered now that December is here, that the snow will not be long in coming, and it is thought that this will cause increased activity in the market. Heavy draft horses, weighing from 1,500 to 1,700 lbs., sold at \$300 to \$350 each; light draft, 1,400 to 1,500 lbs., \$225 to \$300 each; broken-down, old animals, \$75 to \$125, and choicest saddle and carriage animals, \$350 to \$500 each.

Dressed Hogs.—Practically no change has taken place in the price of dressed hogs, and sales were still made at 13½c. to 13c. per lb., for abattoir-dressed, fresh-killed. The colder weather, however, occasioned a more active demand, and prices are generally firmer.

Potatoes.—The market for potatoes held about steady, receipts being fairly large for this time of the year, owing, no doubt, to the continued mild weather. Green Mountains were quoted at 85c. to 90c. per bag, ex track, in car lots, while Quebec varieties were about 75c. In a jobbing way, prices were 15c. to 20c. higher, ex store. Bags weigh 90 lbs.

Honey and Syrup. White-clover comb was 15c. to 16c. per lb.; extracted, 10½c. to 11½c.; dark comb, 13c. to 14c., and strained, 7½c. to 8½c. per lb. Tins of maple syrup sold at 9c. to 10c. per lb., while syrup in wood was 7c. to 8c., and maple sugar, 9c. to 10c. per lb.

Eggs.—Eggs are advancing in price so fast that it is difficult to keep track of them from day to day. Last week strictly fresh eggs were quoted at 55c. to 60c. per dozen, which was probably the highest price ever known for this time of year. Selected eggs were also high, being 37c. to 38c. per dozen, while No. 1 candled eggs were 31c. to 32c., and No. 2 candled held around 25c. to 27c.

Butter.—There was no alteration in the price of creamery butter worth speaking of. A slight decline took place during a public sale, but this was not reflected in general quotations. Choice makes were 28c. to 28½c. per lb., while second grades were 27½c. to 27c. Dairy butter was firm, at 23c. to 24c. per lb.

Cheese.—Cheese showed very little change, and the local demand was not worth speaking of. Western September, colored, was 13½c. to 13c. per lb., and white, 13½c. to 13c.; October Western cheese, 13½c. to 13c. for colored, and 13½c. to 13c. for white.

Grain.—The market for oats was slightly firmer, No. 2 Western Canada oats were 40½c. per bushel, ex store; No. 3, 39½c., while No. 2 feed sold at 38½c. Argentine corn was 78½c. per bushel, ex store.

Flour.—There was no change in the market for flour. Manitoba first-patent flour was quoted at \$5.40 per barrel, in bags; seconds being \$4.90, and strong bakers' \$4.70. Ontario winter-wheat flour was unchanged, at \$4.75 to \$5 for patents, and \$4.50 to \$4.60 per barrel, in wood, for straight rollers.

Millfeed.—Bran still sold at \$21 per ton, and shorts were \$23 in bags, while middlings were \$26, including bags. Mouille was \$29 to \$30 per ton for pure, and \$27 to \$28 for mixed.

Buffalo.

Cattle receipts fell off at Buffalo the past week, runs figuring 5,950 head, as against 9,400 the preceding week, and 8,800 for the corresponding period last year. There were something like a hundred cars of Canadians altogether. About the best in the better weight of Canadian steers, sold around \$7.85, some Indiana and Ohio steers of good weights reaching \$8.75 to \$8.85, with four loads of Kentucky shipping steers ranging from \$8.30 to \$8.50. Fewer Canadian heifers on the butchering order. Local killers have been complaining of late at the bruised condition of the handy, killing, fat heifers, and took off values so that the Canadian shippers let up during the past week forwarding these. Trade last week showed improvement over the previous week, there being a better and stronger undertone to the trade generally. Monday the market was more active, and while the general market was steady, some choice killing kinds selling in some cases a dime to fifteen cents higher. Medium and lower grades held to about a steady level, excepting canners, which sold ten to fifteen cents lower. It was generally an unchanged deal on stockers and feeders, some strong weight (1,000 lbs.), rather coarse steers, not fat enough for killers, going to the country for feed, at prices ranging up to \$7.25 to \$7.50. Best 800- to 900-lb. feeders quotable mostly from \$6.50 to \$6.75, some select selling at \$7. Bulls are selling high, and are in good, strong demand, tops reaching \$7.15 to \$7.25. Good milkers and near-by springers are bringing very high prices, some sales the past week reaching the extreme fancy prices of \$130 to \$150 each, but were no criterion to the general market. Medium and common milkers and backward springers were weak. The market closed up strong for the week, sellers predicting a good market for the next week. It is estimated that something like 100,000 head of Canadian cattle have been shipped to America since the tariff was taken off, the big end being stockers and feeders.

Hogs.—Hog receipts last week were 36,800, as against 58,400 for the preceding week, and 48,800 for the corresponding period a year ago. There was a good, active, hog trade all week, prices being held within a fifteen-cent range on packers grades, selling mostly the entire week at \$7.95 to \$8, some reaching up to \$8.05 to \$8.10. The pig market was rather uneven, ranging from \$7.20 to \$7.50. Roughs sold at \$7.25 to \$7.35, and stags at \$6.50 to \$7.

Sheep and Lambs.—There was an improved lamb trade the past week, under light supply, prices for the first three days jumping seventy-five cents over the preceding week's close, high day showing tops reaching \$8, last of the week showing range on best lambs at \$7.80 to \$7.90. Sheep remained steady all week, ewes selling mostly from \$4 to \$4.25, some prime, handy ones, selling at \$4.50, and top wether sheep quotable around \$4.75, and the best yearlings around \$6 to \$6.25. Receipts for the week were 24,800; preceding week, 39,200; year ago, 49,000.

Calves.—The latter part of the week was high time for calves, tops on Friday selling up to \$12. First half of the week prices on tops ranged from \$11 to \$11.50; culls \$10 down, and grassers \$4.50 to \$5.50. Canadians sold better the latter part of the week by 25 cents, some common grassers from across the border moving from \$4.85 to \$5, while one deck of good Canadians that showed quite a bit of kill, went to slaughterers at \$6.25. Receipts were 1,325 head, as against 1,550 for the preceding week, and 1,700 a year ago. There were about three hundred Canadians included in the week's supply.

Butter.—Creamery prints, 34c.; creamery firsts, 33c.; fancy dairy, 28c. to 29c. Cheese.—Fancy, new, 17½c. to 18c.; good to choice, 16c. to 17c.

Eggs.—White, fancy, 50c.
Dressed Poultry.—Turkeys per lb., 21c. to 26c.; fowls, fancy, 16c.; ducks, 18c. to 20c.; chickens, 17c.
Live Poultry.—Turkeys, 19c. to 21c.; fowls, 14c. to 15c.; ducks, 15c. to 16c.; geese, 16c. to 18c.

Chicago.

Cattle.—Beeves, \$6.60 to \$9.50; Texas steers, \$6.40 to \$7.60; stockers and feeders, \$4.80 to \$7.40; cows and heifers, \$3.35 to \$8.15; calves, \$7 to \$11.
Hogs.—Light, \$7.10 to \$7.75; mixed, \$7.40 to \$7.85; heavy, \$7.40 to \$7.90; rough, \$7.40 to \$7.55; pigs, \$5 to \$7.10.
Sheep and Lambs.—Sheep, native, \$4 to \$5.10; yearlings, \$5.25 to \$6.60. Lambs, native, \$5.90 to \$7.60.

Cheese Markets.

London, Ont., no sales, the bidding from 12½c. to 12¼c. Brockville, the sales were 420 boxes of colored and 230 boxes of white, at 12¼c.

British Cattle Market.

Quotations are 13½c. to 14c. per pound for good quality Irish steers and heifers.

Canada's Grand Championship

As we go to press, we learn by wire that for the second time in succession, J. D. MacGregor, of Brandon, Man., has won the grand championship on beef cattle at Chicago International, and J. & D. J. Campbell, of Woodville, Ont., like honors on sheep. The former won with Glencarnock Victor II, a grade Angus steer, and the latter with a Shropshire wether.

Gossip.

Attention is called to the advertisement in another column of the old, reliable nursery firm, A. G. Hull & Son, St. Catharines, Ont. Since 1880 this firm has been supplying first-class stock to fruitmen, and during the lifetime of the firm they have been noted for their integrity in business and ability to produce good stock. Their name and announcement frequently appears in "The Farmer's Advocate," and Mr. Hull writes relative to its advertising value: "We are pleased to say 'The Farmer's Advocate' leads; thirty years tested and proved by the writer."

DAIRMEN'S MEETING.

The dairymen of Western Ontario will meet in their annual cheese and creamery meeting on Wednesday, Dec. 10, at 1.30 p. m. The meeting will be held at the Dairy School, O. A. C., Guelph, and many matters of interest will be discussed. No set programme has been arranged, but important topics will come before the meeting for discussion, as well as any matters of importance to the visitors.

THE NORWICH FAT-STOCK SHOW.

The 37th annual Fat-Stock Show of the Norfolk and Norwich, England, Association, was held at Norwich the last week in November. Reports state that Shorthorns made a smaller showing than usual numerically. Sir Richard Cooper took the lead in the steer class of the breed with Gentleman John, a big, blocky, red and white, by Primrose Earl, weighing at the age of 2 years 8 months and 2 weeks, 17 cwt. 5 lbs. 2 ounces. The winner in the heifer class was W. M. Gazale's Fairlawn Beauty, a wide and deep roan, by Bold Emperor. Her weight at 2 years 9 months 2 weeks, was 15½ cwt.

The real interest of the show centered in the classes for other pure-breds and crosses, the lead of which was taken by J. J. Cridland's Prince 3rd of Maise-more, an Aberdeen-Angus of great scale, more, an Aberdeen-Angus, and weighing 17 by Wizard of Maisemore, at the age of 2 years cwt. 2 qr. 12 lbs., at the age of 2 years 10 months 1 week. In the test for the championship for the best steer in the show, the honor fell to Mr. Cazalet's John, a cross between a Shorthorn bull and an Angus cow; his weight at 2 years 10 months 3 weeks, was 17½ cwt. The special prize for the best heifer, and the grand championship of the show, went to C. F. Raphael's cross-bred heifer, Ruth of Shenley, by the Shorthorn-Angus cow, Elgin, out of an Aberdeen-Angus cow, and weighing at 2 years 9 months 1 week old, 15 cwt. 1 qr. 5 lbs. She was placed first at the Smithfield Show a year ago.

\$100 or \$10,000

No difference how much you may have in the bank at 3%—you should obtain for your money a permanently safe and profitable investment.

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INCORPORATED 1864.

for sums of \$100 and over left for a short term of years in our Debenture department.

Main Office: 442 Richmond Street, London

T. G. MEREDITH, K.C.,
President.

HUME CRONYN,
General Manager.

Look up the advertisement of the extensive auction sale of 35 registered Holstein cattle, to be held Tuesday, December 30th, at Inverhull Hill Farm, near Hoard's Station, on the Belleville-to-Peterboro branch of the G. T. R. The cattle are bred in the purple, being descendants of the great Johanna Rue 4th's Lad, Sir Johanna Mercedes, Echo De Kol, etc. Two Clydesdale stallions will also be sold. Everything must go, as the farm is sold. Write at once for catalogue to J. A. Stewart, Sr., Menie, Ont.

WINTER FAIR AT GUELPH.

Tuesday, December 9th, will be the opening day at the Ontario Provincial Winter Fair. At eight o'clock, poultry judging will commence, and at nine, the judging competition in dairy cattle will take place, and at ten, the judging of beef cattle, sheep, and bacon hogs, will be in full swing. The first lecture of the Fair will commence at two o'clock, by Prof. W. H. Day, and will be the results of investigations with reference to lightning rods. Horse judging will commence at half-past two. The pony classes will be judged from four to six o'clock. Every admirer of ponies should attend on this day, as it will be one of the finest pony shows ever held in Canada. Entries have now closed, and in every department show an increase, and in some of them the increase is most remarkable. In horses, there are about one hundred more entries than last, and in swine, one hundred and fifty. The beef cattle department, which has been practically stationary so far as the number of entries is concerned for several years, has increased this year by some thirty-odd entries. Dairy cattle show an increase of ten entries, and sheep about twenty.

CASWELL'S SHORTHORN AND CLYDESDALE SALE.

The dispersion sale of the Shorthorn herd and Clydesdale stud of R. W. Caswell, of Saskatoon, held at the Regina Fair Grounds, Nov. 19 and 20, proved fairly successful. The imported champion bull, Gainford Marquis, was sold to Hon. W. C. Sutherland, for \$5,000, and his son, Gainford of Saskatoon, a little over a year old, sold for \$1,025, to H. W. Latimer, Bowden. The bull, Olive Branch, brought \$675; Lavender Marshall \$530; Duke of Saskatoon \$500, and Village Sultan \$400. The top price for a female was \$865, for Gainford Raglan 2nd, taken by H. L. Emmert, Oak Bluff, who also took Burnbrae Wimple at \$625, and Sultan's Queen at \$600, six others selling at \$500 to \$600. The average for 53 head was \$403.

Thirty-four Clydesdale mares sold for an average of \$472.60. The top prices were for Amy of Darley and Mona's Queen, at \$1,060 each. They were sold as a team to J. C. Irvine, of Saskatoon. Two others brought \$750 each, and six others \$500 to \$705. While the mares

are said to have gone below their value, the real bargains of the day were the stallions, the highest price being \$1,200, for Royal Shapely, and \$865 for Sharon's Pride.

Questions and Answers.
Miscellaneous.

Legal Holiday.

1. I am a married man, and am hired by the year on a farm. I have lost five days through going to town for necessary things for ourselves, as I could not get them on legal holidays, and my boss gave me orders in the morning what to work at through the legal holidays. If my boss makes me put in the days I took off, can I collect pay for every legal holiday that I have worked?
2. How many legal holidays are there in a year?
Ontario.

Ans.—1. It does not appear to us that he is in a position to compel you to "put in the days."
2. Including Sundays, there are, ordinarily, sixty-one.

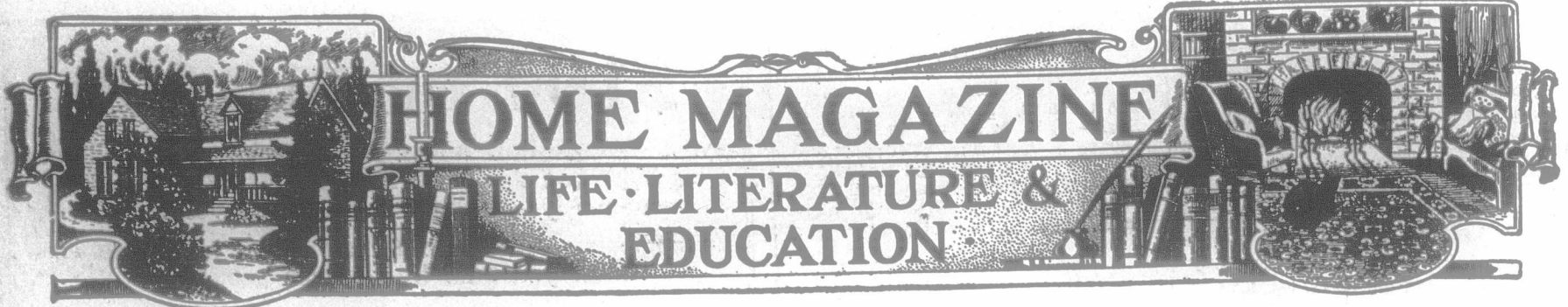
Veterinary.

Lump Jaw.

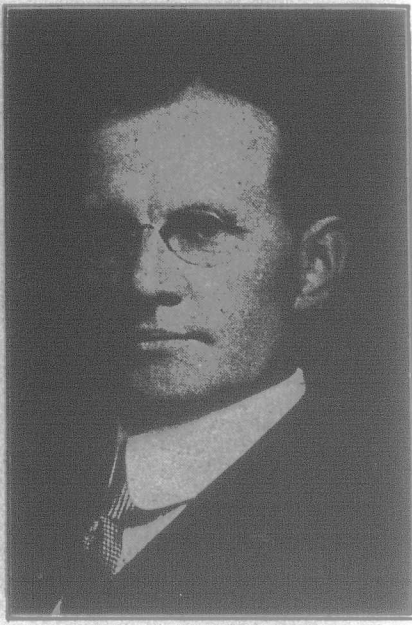
Cow has hard lump the size of a hen's egg on her upper jaw. It is not movable, and not sore. Cow eats and looks well. Is this lump jaw? If so, can it be cured? Is the milk fit for use? Would her flesh be fit for use, and would it be lawful to sell it?
A. J. S.

Ans.—The symptoms indicate lump jaw. In most cases, except quite advanced ones, the iodide-of-potassium treatment will effect a cure. It consists in giving iodide of potassium three times daily, dissolved in warm water, and given as a drench, or sprinkled on food. Commence with 1-dram doses, and increase the dose by ½ dram daily until she refuses food and water, fluid runs from mouth and eyes, and the skin becomes scruddy. When any of these symptoms become well marked, cease giving the drug. If necessary, repeat treatment in two or three months. The disease in the early stages is not likely to effect either the milk or flesh. At the same time, few people care to use either from a diseased cow. The legality of selling the flesh depends to some extent upon the stage of the disease. If the sale of this cow be considered, it would be wise to sell her on foot, and draw the attention of the purchaser to the lump before purchase. V.

Doctor (to patient)—You've had a pretty close call. It's only your strong constitution that pulled you through.
Patient—Well, doctor, remember that when you make out your bill.



THE WOMEN'S INSTITUTE CONVENTION.



Mr. Geo. A. Putnam.
(The popular Superintendent.)

On Thursday morning, Nov. 20th, about eight hundred women from all parts of the Province wended their way to the Canadian Foresters' building, where the tenth annual convention of the Women's Institute was held. When we entered the building we were met by the genial and very popular Superintendent, Mr. G. Putnam, and may I just congratulate the Women's Institute for having such a capable, popular "head," who has done so very much toward the advancement and success of this splendid Society.

Nine years ago the first convention was held in Guelph, with about one hundred delegates present. The Society has grown so rapidly that, as I mentioned before, the convention just held had a gathering of about eight hundred delegates. It has been quoted from good authority, that the Women's Institute is to-day considered to be the strongest organization in the world of any work along this line.

Mrs. Bacon, of Orillia, presided at the first session. She gave a message to the delegates taken from a Toronto paper. The one truth in having a successful life is to attain to quality of life. Our lives must not be stunted by any unjust thought or action, but we should cultivate the habit of seeing the best in our friends, and thus extend this life into a spiritual one.

The reports gave some very interesting ideas on the work done by the different branches. Many of these were along the lines of civic improvement; places of amusement have been provided; town halls decorated; reading-rooms and libraries equipped; cots in hospitals donated, drinking-cups provided for schools; village streets lighted, and many other improvements accomplished.

The leading thought running through all was the value of all working together to make a success of anything.

Mrs. (Dr.) Wilson, of Parkhill, gave an excellent and practical address on medical inspection of rural schools. This was followed by an illustrated address by Dr. Struthers, Toronto. As both were on the same line of work, may I be permitted to combine, as space is limited. The underlying thought is the absolute necessity of the careful attention given to children, the building up of good strong, healthy and pure constitutions.

Statistics were given showing the number of children found defective after

medical inspection, over fifty per cent. needing medical attention. The diseases are usually found to affect the eye, ear, nose, throat, and teeth, many cases of adenoids and affected tonsils being found. These, if not attended to, are the direct cause of many afflictions, one mentioned being bad cases of deafness, caused by adenoids. Dr. Struthers impressed the importance of giving every child a chance by giving it a good, healthy body and mind, thus closing many ways which lead directly to asylums, hospitals, and penitentiaries. The school is a training-ground, and should include everything necessary to help backward children. Many parents are barred from doing for their children by their fear of operations; the aim of medical inspectors is to prevent these conditions by teaching the laws of health. Many



Miss Emily Guest, Belleville, Ont.

people break these laws and never know a healthy day.

Many mothers keep their children too warmly clad. This results in a sleepy condition, a body ready for disease and a continuation of colds. The school nurse should be a link between the home and the school, by coming in contact with the mothers and pointing out defects not known by herself and the family physician, who is only called in in an immediate case of illness. The pictures given showed the medical inspector and school nurse examining the children brought in for inspection.

Mrs. Inch, of Hamilton, gave for her leading thought the need of efficiency as a great moral safeguard, and impressed the teaching of this in our homes and at our public schools.

SUPERINTENDENT'S REPORT.

When Mr. Putnam rose to give his report as superintendent, he was received with hearty applause. Mr. Putnam briefly sketched the life of the Society from its small beginning ten years ago as a minor part of Institutes to the present, when the membership numbers about twenty-five thousand. The members of the Women's Institute are the most forceful factors in the work of the home and the schools. The incentive of the Society is their motto, "For Home and Country," and here may I mention the two very handsome, framed mottos, done by a small boy in honor of his mother, and which were given a conspicuous place on the walls of the

Foresters' Hall. We were sorry we did not hear his name and address.

Mr. Putnam spoke of the idea of many people of the work of the Institute as one only along lines of housekeeping duties, but it was really one which touched every good work done in the community connected, individual efficiency and ambition, the necessary aim for the uplifting of family life, and the life of the country. The support of the Government, and the Dominion and Provincial Departments of Agriculture, is most heartily assured to the Society. The little kindness done the needy, the widows or orphans, and in helping young girls, are often greater ways of showing great work than large things which make more display. We must have a union; without this very little can be accomplished. The outstanding characteristic of the work done is in the consideration of the child. Mr. Putnam expressed his belief that women should have a place on every school board. The Institute has proved itself the most forceful factor in improvement of rural conditions, and it is strongly advised that something be done to counteract the unwholesome social conditions of our cities and towns. Broadmindedness is one outstanding feature of the Women's Institute.

The Question Drawer was very cleverly and capably handled by Miss Watson, of Guelph, and Mrs. Parsons, of Forest, two ladies well known as clever Institute women.

Miss Watson spoke of the value of the teachers' course, and the employment of good teachers; the teacher who only knows how to do the pretty things and neglects the useful ones, is a failure.



Mrs. L.A. Hamilton, Lorne Park, Ont.

In Miss Smith's talk on the great women of Canada, she gave the pioneer women first place,—they who came, endured, and conquered. The purer, nobler assets of empire-building are the mothers and sisters who instil the principles of loyalty. The Canadian woman is especially gifted in good practical judgment. If we take care of homes, the country will take care of itself. A special tribute was paid to the work done by the W. C. T. U. and the W. I.

Mrs. Norman gave as her message:

On all programmes have a definite plan to help the boys and girls to save them from disease and evil. It is not a question of what we like to do, but what we must do.

Dr. Helen MacMurchy warmly welcomed the delegates to this their home city. Dr. MacMurchy gave some practical hints to the workers in the Society. She closed with the thought of the society's aim to make this a holy land. The reply was given by Miss McGee, who spoke on behalf of the Women's Institutes of our gratitude for the opportunity of visiting the city of Toronto and taking back renewed energy inspired by the meetings.

A CLERGYMAN'S MESSAGE.

A very excellent address was given by Ven. Archdeacon Cody, of Toronto. This is our growing time, both in production and thought; higher thought leads to higher achievement. Archdeacon Cody took for his subject the "Rights of the Child." This he divided into parts: First. The right of the child to be born—too many women give their lives to society and neglect the great duty demanded by God. Second. The child should be well born, sound mentally, morally, and physically. It is the duty of the State to prevent the perpetuation of the feeble-minded. Third. The child has a right to live. The number of children who die through preventable diseases is the greatest disgrace to civilization. Good mothers are the child's right. We do not see results of overcrowding in the country; the city slums are breeding children who will wreck our country. The child has the right to protection. The State should interfere with drunken or careless parents of children who should have healthy, happy surroundings. Fifth. The child has the right to play, to be given the proper opportunity to play, and to be taught how to play properly; good morals are learned from good play-grounds. Sixth. The child has the right to the best education that can be obtained. The true aim of education should be the development of character. The cadet movement makes for good teaching, elements of discipline and a corrective of selfishness being two leading points. These lead to good manners. The decay of manners is a matter of lamentation. Good manners teach unselfishness, success, cheerfulness. Manners and morals are important to youth. If the diamond is there it will stand



Mrs. A. L. Stackhouse, Kinburn, Ont.

polling. There are three popular delusions which the general public believe in: First. That we all have strength of character. Second. That we possess a sense of humor. Third. That we have a taste for reading. If a child leaves school with a love for reading, he is well educated. The wives and mothers should lay the strong foundation of religion, and should teach the child courage, temperance, and morality. The basis of morality is that of religion. The true measure of greatness is the growth and power of the soul.

The Hon. Martin Burrell, of British Columbia, Minister of Agriculture, brought greetings from Ottawa. He was impressed by the tremendous force of the movement of the W. I. It is a truism that "the State is a woman." A parent who leaves his child a well-illuminated mind and healthy body, does more good to the State than to leave a vast sum of money. The influence of a good woman is absolutely incalculable on a man's character. Cheerfulness and intelligence are the basis of all the great things of life.

FARM WORK FOR WOMEN.

Mrs. Hamilton, of Lorne Park, gave an interesting illustrated address. The pictures showed the possibilities of farm work done by women. Hard work and economy will accomplish much, and any capable and intelligent woman can do much, and can make a fair living. Many women fail because they do things which overtax their strength. They should, therefore, provide small and suitable implements for work.

Mrs. Goltz, in her opening words, advised the members to work not for honor, but for the good we are going to do.

A very practical and interesting ad-

dress was given by Miss Hill, Vandorf, on Poultry-raising. If the hen is given a chance, she is a valuable source of revenue. The first object should be to have the chicks hatched early to obtain winter layers. Eliminate all mongrels from the flock, and keep only a good grade of fowl. The best food for chicks is a prepared chick-food and buttermilk.

Miss Robson, of Ilderton, in her talk on bee-keeping, mentioned the fact of the possibilities of making money in this way, provided women who undertake this are not afraid of hard work, but they really need a man for heavy lifting. Some years are much better for bees, as they provide their own winter food; if they cannot do this, food must be provided, which requires a considerable outlay. A good colony of bees is worth ten dollars.

PLAY-GROUNDS.

Mr. Armstrong, Supervisor of Play-grounds, gave an interesting paper along these lines. This was accompanied by views showing the different methods provided for the use of the children. He strongly advised the provision of apparatus, different sizes for different ages, lessening the danger of children being hurt. The great need of healthy play was impressed, as it affects not only the mental and physical, but also the moral attitude of the child. The boy without play is father of the man without a job.

PUBLIC HEALTH.

Dr. Amyot gave an excellent talk on public health. He spoke of the duties of the Health Officers, and their work of protecting the public from transmissible diseases. Proper care must be given to all water supplies, sewers, etc. It is also necessary that every case be duly reported. Very valuable information was

given on tuberculosis. This disease attacks all human races and many kinds of animals, and may be transmitted from one to the other. One-seventh of the people in this Province die from this disease. Any part of the body, or any organ, can become affected. The great danger of contagion is from the discharge from any organ containing tubercle bacilli. Another cause of transmission is from the sputum, or from kissing on the mouth. The greatest care must be regarded in sterilizing all vessels used by patients.

The Hon. Mr. Duff, Minister of Agriculture for Ontario, expressed his pleasure for the privilege of congratulating the delegates on the success of their work as evidenced by the rapid growth of the Institute. He expressed the wish that all might go home with the feeling that the holiday has been beneficial, and hoped that the Society may have a very happy and prosperous new year.

NATION-BUILDING.

Miss Guest, of Belleville, gave an interesting address on the work of Nation-building. This work is focussed on the child, as shown by the increased endeavor along medical lines, temperance lines, and other work on social conditions. We have great revivals to bring people back from where they should never have been allowed to go. Get the child right and keep it right. It is a nobler work to build strong men and women than naval armaments. We must have things to defend rather than defenses.

Miss Guest brought a resolution before the audience which was favorably received: That we be given a Department of Child Welfare, governed by a body of well-educated men and women of all

classes to teach the subjects pertaining to the spiritual and physical welfare of the child.

Other resolutions were: One of sympathy to the bereaved friends of the brave men and women lost in the late lake disaster; also that steps be taken that will provide medical inspection for rural schools. These resolutions were met with hearty and sympathetic approval. A donation of sixty-eight dollars and fifty cents was collected and sent to the special benefit fund of the lake disaster.

Greetings were received from British Columbia, Manitoba, Prince Edward Island, New Brunswick, and Saskatchewan.

In passing, may one be permitted to speak of the beautiful collection of flowers, fruit and honey, shown by the Horticultural Society. The exhibition-grounds seem to be suitable surroundings for this "little exhibition," as I heard it termed. One feature which seemed to attract much attention was a map of the County of Peel, the background of fruit, and all the railway lines and roads being mapped out. The honey made an extremely pretty display, but the chief attraction for us was the wonderful array of flowers. We would not have believed that such immense and beautiful chrysanthemums could be cultivated.

From there, we took a run through the poultry building. At the door we were welcomed by shrill cackling and hoarse crowing issuing from the throats of hundreds of fowl. We were much interested by the splendid exhibition of poultry and the different classes shown, but as we were limited to time we had to hurry through.

Flowers in Toronto, and Talks About Gardening.

CHRYSANTHEMUMS.

Speaking of chrysanthemums—were you so fortunate as to visit the Transportation Building during the Exhibition Grounds during the recent winter show in Toronto? If so the mention of them will bring it all back—the big hall fragrant with perfume of apples and pears and grapes, the tables of honey arranged in pyramids of liquid gold, the music of one of Toronto's best orchestras, the palms and ferns and orchids transforming the southern end of the big building into a veritable garden of Haroun Alraschid, but above all the chrysanthemums, everywhere the chrysanthemums, great globes of gold and bronze and pink and white, perfect in form and color. Some years ago, when the Flower, Fruit and Honey Show was in Massey Hall, a single chrysanthemum from the Dale greenhouses at Brampton, was given a special post of honor, and a placard was attached to it stating that it measured 23½ inches around. This year, not only from the same greenhouses, but from those of Jennings of Brampton, Sir Henry Pellatt and others, were not one but scores of flowers each measuring 24 and 25 inches in circumference. Sometimes large flowers do not appeal, but the chrysanthemum seems to bear the enlarging process well. One wonders, however, when the development will stop. "Large as cabbages!" is the exclamation today. Will not that of to-morrow be "Large as pumpkins!" or as "wash-tubs"? Verily it will be interesting to watch this, the evolution of the chrysanthemum.

Another item of interest in the hall was a series of decorated dining-tables, in various color notes, that winning the first prize being a shimmer of silver and mauve with orchids as a centerpiece and smilax trailing over the white cloth. In looking at such tables one is surely reminded of the distinction between "eating" and "dining."

Just a few words here,—it did seem a pity that, with the best flower, fruit and honey show on record, the floors should have shown for the most part, so many bare spaces so far as spectators were concerned. The exhibit was well worth the little trip out on a street-car, and it is to be hoped that next year the committees in charge may receive the encouragement that their efforts so well deserve.

AMONG THE GROWERS.

Here in the Transportation Building were results. Farther up in the city, in the Railway Committee Room of the Parliament Buildings, to be precise, one came as it were to the brain-power which has made such results possible, for here sat in convention the delegates of the one association in Ontario which has set itself primarily to the promotion of the growing of flowers, shrubs and trees (with small fruits and vegetables secondarily), and to the general beautification of our Province,—the Horticultural Association of Ontario.

Now, do not turn a page, saying to yourself, "The Horticultural Association

After that it is "up to" you and your helpers to make it a success.

The aims of the Association? Surely they are worth while: More beautiful homes; a more beautiful Province; the growing of flowers, vines and shrubs in the best way; the preservation of natural beauty-spots—and the doing away with hideous sign-boards in places where they should not be; the cleaning up of dumps, and utilization of waste places; the arrangement of grounds, and perfection of the little home vegetable and fruit garden; the beautification of school-grounds, and the grounds of all public buildings; the encouragement of school and home gardens for children.

With all these comes the moral uplift.

receive fine plants and bulbs as premiums, to come in touch with horticultural literature, and with people who can answer questions in regard to growing things. But, after all, as Mr. T. D. Dockray put the matter at the convention, the real spirit in joining the association should be, not anxiety for what one can get out of it, but rather for what one can "put into it."

THE CONVENTION.

The convention was opened on November 20th, by the President, Rev. A. H. Scott, of Perth, who dwelt strongly on the power which life on the soil has to bring happiness to man. Life, he noted, began in a garden, and tilling the soil has always been acknowledged by the wise as a creditable occupation; Xenophon spoke of it as an occupation for "high-minded and honorable men." The farmer should never consider himself a minor factor in civilization. . . . Passing to more concrete things, the speaker dwelt upon the horticultural idea which aims at the realization of beauty out in the rural districts as well as at the capital. It should be expressed in every home, and it should be realized that it is as necessary to have the back yard pleasing as to have paint on the front veranda. Above all, he would like to see the Visibility of Horticulture bring out a revival of piety. There is to-day too much of the filth of graft, too much worship of fine houses and great functions. Great wealth never made a nation great or honorable. It takes greater courage to be poor in America than to charge earthworks in Manchuria; we are in a state of thraldom now, but there is a day of liberty coming, and our efforts will help to bring it about.

SOME HINTS FOR PLANTING.

The reports of the treasurer, Mr. H. B. Cowan, and the secretary, Mr. J. Lockie Wilson, showed satisfactory progress for the year. Mr. Wilson spoke, however, of the necessity for extending the work, and the great transformation that would be brought about if everyone would plant flowers and trees. Through the society much of this might be done, but the officers must be ready to work hard. "A satisfied man or woman," he said, "is absolutely of no use in an organization such as ours." He had been pleased during the year to notice the improvement in station properties, but there are many stations yet that are a disgrace,



Where the Horticultural Convention was Held. Parliament Buildings, Toronto; tulips in foreground.

has nothing to do with the farms. We have none here. I am not interested in it." If you have not a Horticultural Society in your district, why have you not? Why should not you yourself see to that one is started?—A letter written to that one is started, Mr. J. the Secretary of the Association, Mr. J. Lockie Wilson, Parliament Buildings, Toronto, a meeting called, officers appointed, and the society is under weigh-

Did you ever yet know a really bad man or woman who was a garden enthusiast—enthusiastic not for gain, but for love of the beautiful, of the light of the sun and the blessed out of doors?

True, there is a small fee to cover expenses in connection with joining the Horticultural Association, but it is almost nominal, and to more than counterbalance it, there is the opportunity to



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regardless even of paint. One switchman of whom he had heard, planted in a dry, sunny place, a five-cent package of portulaca. It flourished as portulaca can in apparently barren spots, and before long the switchman was giving away seed, until he had given away hundreds of packages. "When one lone man can do so much," said Mr. Wilson, "what should not such an organization as this accomplish?"

The colors of fences and walls should be harmonious and inconspicuous, and the planting should be chiefly of trees, shrubs, etc., common to the neighborhood. He wished to enter a protest against "flower-bed abominations," wheels, anchors, and such devices. Planting may be arranged to give a perspective, as may be seen by observing nature's example on the edge of a woodland.

A synopsis of the work done by various societies throughout the year, showed many items of progress: Flower shows held; seeds and plants given to school-children; prizes given for best lawns, gardens, and window-boxes; lectures delivered; planting of flowers, shrubs, etc., at churches and other public buildings; roots and seeds given as premiums, and many other items. In St. Thomas, one of the "banner" societies, the membership was shown to have increased to 708 members. Here 16,000 tulips were grown during the year, and 80,000 more were ordered from Holland, to be planted this fall. Very successful flower shows were held, the last show having 500 entries. The flowers were afterwards distributed among the sick and aged.

Mr. Brown, of Berlin, in introducing the discussion on the reports, suggested the advisability of seeing that a copy of the annual report find its way into the hands of every member of the association. He also greatly emphasized the holding of one or more lectures every year on appropriate topics. The "outside speaker" is usually a greater attraction than the local man, and circulars should be printed and sent to the various branches, containing information in regard to speakers who are available, and their lists of subjects. He considered a copious list of premiums for spring and fall planting, very important, also the work of juveniles to whom, after a time, a portion of the grant given by the legislature might be apportioned. He would like to see competitions made compulsory.

Prof. Hutt, of the O. A. C., said he should be glad to receive lists of premiums offered by the various societies. He had noticed that in some places, tender species were being offered, and felt that these should be eliminated. He would be very glad, he said, to give any assistance in his power to any committee that would apply for it.

HORTICULTURE IN THE NORTH.

Hon. W. H. Hearst, of Sault Ste. Marie, opened the afternoon session by a most illuminating address on the agricultural and horticultural possibilities in Ontario's great Northland. There is fine agricultural land there, he said,—three-times more than is under cultivation—in Patricia, in the clay belt, Kenora and Rainy River Districts. Grains, etc., grow as far north as Hudson's Bay, and fine potatoes are raised 200 miles north of Port Arthur. As a rule, we have a very mistaken idea of the climate; that at Abitibe compares very favorably with that at Winnipeg. The long days, and not excessive heat, assist greatly in the growth and quality of vegetables and flowers, which are, as a rule, very choice. Mr. Englehart, who has made a special study of the soil, found that that at Englehart far surpasses that of parts of Southern Ontario for flowers. He himself had seen cabbages grown at Cochrane that weighed over eighteen pounds, and that when grown without fertilizer. Raspberries and strawberries grow well, while apples, currants and grapes, have been ripened as far north as New Liskeard. At Kenora, sweet peas with stems fourteen feet in height, bloom freely. "In this new land," he said, "we are trying to develop the beautiful as well as the material. The North Land is a great asset, and you of the South will do much for Canada if you do much for the development of the North Country."

Mr. Chambers, Parks Commissioner for Toronto, gave a talk on "Parks and Boulevards for Small Towns," from which one point may be culled even for rural communities, i. e., the advisability of reserving and preserving the most striking features, hillsides, glens, and watersides, as pleasure-grounds for the people.

AT THE EXPERIMENTAL FARM.

Mr. F. E. Buck, of the Experimental Farm, Ottawa, spoke on "Recent Experimental Work," a subject of great interest to all who know anything of the work of that institution. Ninety-five per cent. of all experimental work, he noted, is negative in result, but this does not discourage mankind from keeping on; the other five per cent. may be greatly worth while. For years past trees and shrubs have been tested, with the result that, while countless shrubs have been discarded, others have been found valuable. To introduce these to the public, semi-popular bulletins have been prepared in which are indicated those trees, perennials, etc., found best. On account of the pruning, it had been found almost impossible to have flowering shrubs for hedges, but the following had been found valuable for hedges of distinctive character: Purple barberry, red-leaved rose, cut-leaved alder, and red-twigged dogwood. The perfect hedge must permit pruning, must be pretty most of the

year, must not winter-kill, and must not be subject to insect or fungous ravages. . . . Prof. Macoun's bulletin on perennial flowers, classified for hardiness and long-blooming season, would be found very valuable to flower-lovers. . . . At present, and for the past two years, annual flowers are being tested. In tests for sweet peas it was found that, in Ottawa, those planted in a trench did not do as well as those planted on level ground; also those planted 3 inches apart did better than those planted 6 to 12 inches apart. . . . "Seeking improvements for better homes"—this is the basis of all the work at the Ottawa Experimental Farm.

SCHOOL CHILDREN AND HORTICULTURE.

A very interesting and inspiring paper on the above subject, by Mrs. R. B. Potts, of Hamilton, so impressed the audience that arrangements were made to have some thousands of copies printed for distribution. A report of this paper is not given here, as it will appear before long in toto, as will also one or two other papers given at this convention.

SECOND DAY'S SESSIONS.

An interesting feature of the second day's proceedings was the election of officers, which resulted as follows:

President for 1914—J. H. Bennett, Barrie.
First Vice-Pres.—G. W. Tebbs, Orangeville.
Second Vice-Pres.—Dr. F. E. Bennett, St. Thomas.
Treasurer—H. B. Cowan, Peterborough.
Secretary—J. Lockie Wilson, Toronto.
Honorary Directors—Rev. A. H. Scott, Perth; Prof. Macoun, Ottawa; Prof. Hutt, Guelph; Mr. Burgoyne, St. Catharines.
Directors—F. B. Bowden, Hawkesbury; Mr. Kent, Kingston; Geo. Vickers, Barrie; T. D. Dockray, Toronto; Jas. Ogilvie, Hamilton; T. Cottle, Clinton; R. W. Brooks, Brantford; Mr. Gammage, London; H. J. McKay, Windsor.
Auditors—J. S. Moorcraft, Bowmanville; Mrs. Potts, Hamilton.

Representative to the Canadian National Exhibition—W. J. Diamond, Barrie.
Representatives to the American Civic Association—Rev. A. H. Scott, J. Lockie Wilson, Mr. Burgoyne.

LAWN AND GARDEN COMPETITIONS.

A paper by Mr. Hugh Johnston, Toronto, on the above subject, gave many useful suggestions. Picture-talks, giving methods, etc., once a week for a month, at the proper season, would be found very useful as a stimulus. Later, the judging of gardens and lawns at the times specified is most important. Prizes should be such as must reflect the greatest credit possible on the receiver; money is, of course, the least admirable. Choice plants will be found very good invariably, and a trophy of some kind, e. g., a shield with an emblem or motto, has been found effective. Inspections

should be made during spring, summer, and fall, and merit marks recorded. Special competitions in flowers and vegetables may be given to school children and boy scouts.

In marking, it will be found advisable to add ten per cent. to the total for first-year gardens, and five per cent. to that for second-year gardens.

An interesting discussion followed, in which various prize methods were given, and the necessity for the greatest care in judging emphasized. Mr. Johnston referred to one case in which a prize was given for "general appearance." At one home, "all the potted plants in the city were corralled" and pressed into service. "This is not horticulture," said Mr. Johnston.

SHRUBS FOR LAWNS.

A paper on the "Best Variety of Shrubs for Lawns Surrounding Public Buildings," by Mr. Roderick Cameron, was read by Mr. Dockray. Most buildings, it was pointed out, look bare without the softening influence of vines and shrubs; the City Hall of Toronto, for instance, needs them around the base and in the angles. Tecomas and Celastrus are kinds that might be used among the Ampelopsis (Boston Ivy) to relieve the flat green, Celastrus scandens having orange-red berries that look very warm and pretty above the snow in winter.

The shrubs about the base should be chosen to accord with the style of the building and the situation. Shrubs likely to be satisfactory in the various aspects, are:

North.—Caragana arborescens, Hydrangea arborescens, Cornus spæthii, Cornus elegantissima variegata, Cornus Siberica, Kerria Japonica, Philadelphus coronarius foliis aurea, white kerria, Ribes aureum, or Missouri currant.

East.—Any of best-flowering shrubs. Also for West, if well watered and sprayed to keep down aphid and red spider.

South.—Burning by sun and attacks from insects, both give trouble here. Species recommended are: Aralia spinosa, or Japonica, and Tamarixparviflora.

Forsythia suspensa is always clean and tidy, Spiræa prunifolia flore pleno, viburnum plicatum, and v. tomentosum, are to be recommended, and can be used with Spiræa Anthony Waterer, towards the outside. Deutzia Lemoni and Deutzia gracilis are about our dwarfest shrubs.

In small grounds, it is only the corners that should be filled up, with a few isolated specimens, e. g., bay trees, elsewhere.

A good picture needs a good frame; the building is the picture, and planting should be done with regard to it. As a rule it is not good to put a continuous row of tall trees of the same size at the back unless an ugly scene is to be shut out. Fruiting shrubs are very important for the winter, and spaces beneath all shrubbery may be improved by a "cover" of periwinkle, bearberry, ononymus radicans, etc.

Tall shrubs recommended for grouping are: Double-flowering thorn, Judas tree, silver bells, spindle tree, golden oak, fringe or smoke tree, maiden-hair tree, royal willow, Syringa Japonica, golden-barked ash, Japonica rosea, cut-leaved alder.

Shrubs for foreground.—Diervilla, Weigelia Eva Rathke, Lonicera tartarica, Lonicera tartarica fructu lutea, with yellow fruit.

Elders are much used in the old land, and the Japanese snowball and white fringe tree must not be forgotten, with Daphne cneorum for the front of the border. Hydrangea paniculata and H. arborescens, should be in every collection, as should Spiræa Van Houttei and Spiræa Thunbergii. Prunus triloba makes a bright spot in the garden, while rosa rugosa gives colored fruit in the fall. The pearl bush is an excellent, hardy shrub, while a number of dwarf sumachs and barberries are found useful for color effect among shrubbery.

Reports of the Committees on Nomenclature and Novelties were read by Mr. Hunt, of the O. A. C., who kindly took the opportunity to interject many useful hints in regard to the plants named.

In a discussion on plants hard to grow, Mr. Cavers, of Oakville, told his plan of protecting the tritoma by V-shaped



Chrysanthemums at the Flower Show.

Held in the Transportation Building at the Toronto Fair Grounds, November 17th to 22nd.

boards to keep off the wet in winter. Mr. Hunt remarked, in reply to a question, that salt on the ground would probably be useful to keep rust off the garden lily.

A BANNER SOCIETY.

Dr. Bennett, of St. Thomas, in an interesting address on "How the membership of the St. Thomas Horticultural Society became one of the largest in Ontario," gave many hints for anxious societies. He had accepted the Presidency, he said, only on condition of a grant of \$100. That gave something to begin work on. Lawn and garden contests had been made a feature, and flower shows held in store windows. Prizes had been given for the best collections, and the flowers sent to the sick, whose names were obtained from the pastors of the churches. Poor foreigners and old folk were also remembered. At present the membership is 708, and this fall 17,000 bulbs were given away, and 9,000 imported for extra orders. Prizes are offered to juveniles, for gardens, etc.; photos are taken of prize places, made into lantern-slides, and shown, with talks; public flower-beds have been planted, and the help of the press enlisted.

A very important item in working up a society, Dr. Bennett considers, is to carry membership cards, pencil and change, when enlisting members. "Don't let them bluff you," he said. "They will thank you for it later." He knew a man who didn't know a sunflower from rhubarb to begin with, and the dollar membership fee had to be pulled out of him. Now he is one of the most enthusiastic horticulturists in St. Thomas.

VEGETABLES FOR A SMALL LOT.

A paper on "Vegetable Production on a 30-foot Lot," by Mr. Geo. Baldwin, of Toronto, was a revelation in regard to the amount that may be grown on a very small area. All the work in his garden, Mr. Baldwin said, had to be done before seven and after six, yet he had enjoyed the work, and found it full of science and interest. Gardening he had found a delightful hobby, but knowledge is essential to success with it. You must, if you will garden, learn how to fertilize and how to fight bugs. In 1912 he grew 82 varieties in his 30-foot lot. His plans were made in winter, and numbers of plants started in a hotbed or in a green-house. He preferred the latter heated with a hot-water boiler. About the second week in March the earliest seed should be sown. Use lots of it, and press down firmly. Keep moist, and as soon as ready transplant into berry-boxes. The garden itself should be heavily manured and dug deeply in fall, then in spring, raking will be sufficient for beets, carrots, parsnips, and salsify. All planting should be over by May 24th or 31st, governed by weather conditions.

Sow squash, marrow and cucumbers, in hills three feet each way. Dig the beds fifteen inches deep, dig in manure, and put fine soil on top. Scatter a few radish seeds to attract the squash bugs. Prepare the ground for tomatoes the same way, but train the ornamental varieties along the fence. Allow four shoots to each tomato plant, and train to sticks placed at an angle of 75 degrees outward. Pick the fruit just as it ripens. When setting out tomato plants, lay the roots on a slant in the hole, then fill in, thus to give more moisture and root.

Sow earliest onions March 10, and transplant May 10 into rich soil, 4 to 6 inches apart in rows 18 inches apart. Hoe frequently, and feed the big onions liquid manure. Slaked lime and sulphur sprinkled among the rows will help to keep down maggots.

Constant vigilance is the price of freedom from worms, bugs, and all kinds of creeping things, but the best way to avoid pests is to grow strong plants. Plants should never be sprinkled in the sun, as brown leaf spots may be the result.

The reading of this paper was followed by an interesting discussion in which many points for which there is no space here were brought out.

In closing, may one express, as one has expressed before, surprise that farmers and their wives are not more largely represented at these meetings. There should be Horticultural Societies everywhere in the country. Their presence everywhere would result in universally

beautiful home surroundings, with all their uplift; in cleaner roadsides, planted with trees (in parts of Europe fruit and nut trees are used); in happier, because more interested, lives; in more successful gardening and fruit culture. Why, then, are there not Horticultural Societies in all the rural districts?

Little Trips Among the Eminent. Canadian Poets.



Duncan Campbell Scott. By Clayton Duff.

THE OTTAWA SCHOOL.

Duncan Campbell Scott was born in the capital, where he still makes his home. He was educated at Stanstead College, Que., and married an American violinist, Miss Belle W. Botsford. He is a frequent contributor to periodical literature, has written a novel, and was one of the editors of the series of Canadian biographies, "Makers of Canada." He has published several volumes of poetry, "Labor and the Angel," "The Magic House," and "New World Lyrics and Ballads," the latter drawn from Indian sources and stories of early adventure and exploration in America. Scott makes one think of an artificer in precious metals, whose work is characterized not so much by vastness of

conception as by the beauty of his materials and exquisite nicety of manipulation. There are passages in his poems like clusters of gems,—

"Pallid saffron glows the broken stubble, Brimmed with silver lie the ruts, Purple the ploughed hill; Down a sluice with break and bubble, Hollow falls the rill; Falls and spreads and searches Where beyond the wood, Starts a group of silver birches Bursting into blood."

In that exquisite fantasy, "The Piper of Arl," the colors beam forth with such pristine clearness and purity it is as if one were looking at a picture in a bubble or a drop of dew:

"There was in Arl a little cove Where the salt wind came cool and free, A loamy beach that one would love If he were longing for the sea."

"A brook hung sparkling on the hill, The hill swept far to ring the bay, The bay was faithful, wild, or still, To the heart of the ocean far away."

There is the same quality in a greater or less degree throughout his work, in whole poems, such as "The Fifteenth of April," "A Flock of Sheep," "Of Riviere Du Loup," or in some lovely single verse like this:

"A ship is straining out to sea, To Norway or to France she goes; And all her happy flags are free, Her sails are flushed with rose."

Judged from the standpoint of pure and severe beauty, Scott has written poems that are unsurpassed in Canadian literature. But he reveals strong and deep feeling, as well, when touching on social themes, as in "Labor and the Angel," where he uses the incident of a blind old man gathering roots in the autumn fields while guided by a young girl, as the symbol of Labor watched over and inspired by Love:

"For labor is always blind, Unless, as the light of the deed, The angel is smiling behind."

There is an idyllic touch, a suggestion of old-time grace and leisure in the songs of the seasons, while, in contrast, that whole sonnet, "Life and Death," with its symbolism of the sea, and the shore exhibits the serene philosophy of this poet:

"I thought of death beside the lonely sea, That went beyond the limit of my sight, Seeming the image of his mastery, The semblance of his huge and gloomy might."

"But firm beneath the sea went the great earth, With sober bulk and adamantine hold, The water but a mantle for her girth, That played about her splendor, fold on fold."

"And life seemed like this dear, familiar shore, That stretched from the wet sands' last wavy crease, Beneath the seas' remote and sombre roar, To inland stillness and the wilds of peace."

"Death seems triumphant only here and there; Life is the sovereign presence everywhere."

The characteristic charm of Scott's poetry is a kind of refreshing quality. Its beauty is never hectic or intoxicating, but cool and grateful as a starlit night or a woodland spring.

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When E. W. Thompson was a youth he saw service in the American Civil War. Fortunately for the happiness of his readers, he survived that experience, became a journalist, and, as a colleague of his remarked at the time, was to the Toronto Globe what Hamlet is to the play of that name. Then he went to Boston to fill an important editorial position on the Youth's Companion, and became noted as the author of some clever stories. "Old Man Savarin" was the title of a volume of these. Nowadays, Thompson lives at Ottawa, acting as the Canadian representative of the Boston Transcript, and his views on Canadian public questions are quoted.

There seems to be a tendency to overlook Thompson in the field of Canadian poetry. He may not have been so confirmed a poet as some of his Canadian contemporaries, but the quality of his verse entitles him to high rank. When reading such poems as "June," or "The Sweetest Whistle Ever Blew," or "We Talked of Lincoln," we have not to be convinced that this is real poetry; but feel instinctively that a rich personality is speaking in tones that master us. Hazlitt says that Irish oratory is always going up in a balloon and breaking its



The Prize Table. Decorated with orchids and smilax.

neck, or coming down in the parachute, a misfortune not unknown in Canadian poetry; but Thompson is one poet who has full control of his balloon, and his flights end even more skilfully than they begin. His poems, throughout, are rich in graphic lines, and the spontaneity and freedom of his metaphors impart a freshness to the thought he wishes to convey that makes it leap into the comprehension of the reader.

The April poem, which is quoted in part below, reveals the charm and vigor of Thompson's style:

"One day when April willows fringed the pool
Of fifty years ago with freshening gold,
Myself came trudging from the country school

With my tall grandsire of the wars of old;
His peaceful jack-knife trimmed a ravished shoot,
Nicked deep the green and hollowed out the white,
To fashion for the child a willow flute,
His age exulting in the shrill delight;

'For so,' he said, 'my grandsire made
The sweetest whistles ever blew,
When I and he were you and me,
And all the world was new.'

"To-day in mine a grandchild's balmy hand
Eagerly thrills as toward the pool we go.

Now, blade unclashed, I skirt the marge to choose
One withe from all the willow's green-
ing throng,
The imperfect branches tacitly refuse,
To clip at last the wand without a prong.
Its knots I scan, the smoothest reach to find,
Cut true around the tender bark a ring,
Bevel the end and artful tip the rind,
Draw out the pith, and shape the chambered thing.
Exactly so, as long ago,
In April weather sweet as this,
My grandsire did when he would bid
A whistle for a kiss.

"Now Billy snuggles palm again in mine,
'Over the hills,' he blows, 'and far away,
O, pipe of Arcady, how clear and fine
Thy single note salutes the yearning day,
The breeze in branches bare, the whistling wing,
The subtle, bubbling frogs, the blue bird's call,
The quivering sounds of ever-piercing spring,
That one thin, willow note, attunes then all;
And, far and near at once, I hear
The sweetest whistle ever blew,
Lilting again the olden strain,
And all the world is new.'

Hope's Quiet Hour. God Does Not Forget.

God is not unrighteous to forget your work and labor of love.—Heb. vi.: 10.

God does not forget any work of love. Why? Because the work of His children is very dear to His Fatherly heart. Even a trifle is treasured when it is the work of one dearly loved. Bishop Collins, of Gibraltar, carried in his pocket-book, wherever he went, a tiny note which his wife had written to her mother when she was a little child.

"My Dear Mamma,—Will you please ask God to make me a better little girl?
"Your loving child,
MARY STERLAND."

That artless appeal, showing so plainly that the child's greatest desire was holiness, and showing also her faith in the Giver of every good gift, was never forgotten by God. He had millions of prayers to answer, but that one received full attention.

A short time ago I received a note from "Norham," enclosing three dollars for some poor girl. I am sure God does not forget her many kindnesses to His needy children. I have given \$1.00 to a

poor girl who has been very ill for five months, and who is not likely to recover. She asked me to tell her unknown friend that "now" she was sure that God would provide. Another dollar has been spent on a chicken and other things for a girl who is dying. She can only take the broth, but the mother—who will be all alone in the world when the fight with death is over—needs strengthening and appetizing food. Perhaps "Norham's" gift may save her from a break-down. Probably the rest of the money will be also needed in that little home. Now, I ask again—for the third time—for "Norham's" name and address. This is not for publication, as she evidently wishes to give secretly—but I have a very special reason for asking.

Two days ago I was visiting a woman who has been told that she must lie on her back (without even a pillow under her head) for a year. She told me, smilingly, that she had not a trouble in the world, although her little child of three must be cared for by others, and it is very possible that her year's imprisonment may not effect a cure. I asked her if she objected to my telling others about her, as it might encourage those who have far less to complain about to bear their troubles cheerfully. She said she was only too glad to help in any way possible. God knew she was doing the very hardest kind of work, and knew also how she desired to help in the uplift of humanity; so He opened the way—through an apparently chance re-

were not there, and they led him into the pulpit. So the venerable man preached most beautifully upon the love of God, ending, as was his wont, with these words: "The which thing may the Lord grant to us through Jesus Christ, His sake." Whereupon all the holy angels made answer, "Amen, Amen, Most Venerable Bede," for they would not have him to know that the church was empty."

No work and labor of love can possibly be wasted or drop into oblivion. God is not unrighteous, and no cup of cold water, really given for love's sake, fails to bring a rich reward to the giver. Perhaps the greatest reward it brings is the uplift of the giver. Each opportunity for doing a good action is as the step of a ladder on which a soul may steadily climb higher.

"I count this thing to be grandly true,
That a noble deed is a step toward God,
Lifting the soul from the common clod
To a purer air and a broader view."

When trouble comes, or a sudden storm—like the one which recently swept down on our Great Lakes—brings distress and bewilderment to destroy our peace, we are driven to the only real Comforter for help. A man may forget God for years, but when he stands beside the coffin of his little child he remembers God, even though it may be only to reproach Him. Why should anyone wait for darkness and sorrow before he turns for sympathy

should remember God—how splendid it is to know that, even when we are careless and forgetful, God always remembers us. Some years ago a dear little blind woman had a bad fall down the stairs. She told me, in all simplicity, that she supposed it was because she had not said her prayers that morning. Someone had taken ill, and she had hurriedly started off for help, had missed her footing on the first step, and fallen. Yet she rejoiced daily in the certainty of God's infinite love. Did she imagine the Father could forget His dear child just because, in a moment of excitement, she had forgotten Him?

A child of God may say sadly: "My Lord hath forgotten me." What does He answer? "Can a woman forget her sucking child, that she should not have compassion on the son of her womb? Yes, they may forget, yet will I not forget thee. Behold, I have graven thee upon the palms of My hands."

An Eastern woman sometimes had the name of a loved child indelibly tattooed on the palm of her hand, so that she was constantly reminded of him. Even a mother might sometimes forget her child for an hour or two, but God's love never fails.

Not because I am firmly clasping my Father's hand, but because He is clasping mine, I go forward fearlessly to greet the unknown New Year. The way is new and untried, but strength will be given each day as it is needed—daily bread, like the manna in the desert. I feel quite safe. Why?

"Because my Father's arm is round me cast;
And if the way seems rough, I only clasp
The Hand that leads me with a firmer grasp."

DORA FARNCOMB.

"IN THE GARDEN WITH HIM,"

By Dora Farncomb.

(A new book by the author of "Hope's Quiet Hour," is now ready.—

Price, 75 cents.

"The Vision of His Face,"—50c., 75c., and \$1.

"Star-Led to the Heights,"—25c. and 35c.

THE WILLIAM WELD CO.,
London, Canada.

Outlook.

Not to be conquered by these headlong days,
But to stand free: to keep the mind broad
On life's deep meaning, nature's altitude
Of loveliness, and time's mysterious ways:
At every thought and deed to clear the haze

Out of our eyes, considering only this:
What man, what life, what love, what beauty is,
This is to live and win the final praise.

Though strife, ill-fortune and harsh human need
Beat down the soul, at moments blind and dumb,
With agony; yet, patience—there shall come
Many great voices from life's outer sea,
Hours of strange triumph, and, when few men heed,
Murmurs and glimpses of eternity.
—Archibald Lampman.

Some folks they keep huntin' for sorrow;
They sigh if they're right or they're wrong;
But this day's as good as to-morrow.
So I jest keep a-livin' along.

I jest keep a-livin' along.
I jest keep a-singin' a song;
There's no use to sigh
While the sun's in the sky;
So I jest keep a-livin' along.



Jim Larkin, the British labor leader, at his desk,—the rough dock laborer to whose fiery eloquence tens of thousands of people have listened during the past fortnight. "He is the will and the fate to the multitudes," writes the London Times.

mark—for her to touch and inspire with courage many thousands of people.

Do you ever go on with a work and labor of love, feeling just a little discouraged because no one seems to appreciate the effort you are making? Listen to this story. A lady in England, who is very talented, does a great deal for the girls in a village near her home. A friend of hers once told Bishop Collins that this splendid woman seemed to run somewhat to waste, living so far out of the world. Then she described how, even on a wild winter's night, a lantern would come glancing down the long, steep drive, and the lady of the manor would trudge to the village to hold a G. F. S. class, which very few girls took the trouble to attend. But the Bishop did not consider that there was any waste of fine material. "Think of the angels," he said, "they all see her and understand all about it, and call to each other. . . . Come and look at dear Mrs. B. going down to Brough in all this snow." Then he went on to tell this story about the Venerable Bede: "It befell one day when the Venerable Bede was old and blind, that some boys came to him and said: 'Come, O Venerable Bede, and preach, for all the people are waiting for thee'; but they were ribald boys, and knew that the people

to the only One who can fully understand? St. Paul says that we should not only weep with those who weep, but rejoice with those who are rejoicing. We may find it difficult to be so really interested in our neighbor that we are glad when things go well with him, but God always rejoices in our happiness. Perhaps you have some secret joy which you long to tell to a friend who will really care. One is too occupied with his own affairs to give you anything but scanty attention, another cannot understand, because your experience has never been his. Your attempted explanations might almost as well be in Greek. And yet you need understanding sympathy.

God never forgets our need of sympathy, and therefore He came into this world to stand beside us always. Take your joy to Christ as you take your sorrow. Kneel at His feet and lay your hands in His, look up into His face and do not miss His smile. He cares. He rejoices because you are glad.

Hear the wonderful words of the prophet Zephaniah:

"The LORD thy God in the midst of thee . . . will rejoice over thee with joy; He will rest in His love, He will joy over thee with singing."

We are constantly being told that we

Fashion Dept.

HOW TO ORDER PATTERNS.

Order by number, giving age or measurement as required, and allowing at least ten days to receive pattern. Also state issue in which design appeared. Price ten cents PER PATTERN. If two numbers appear for the one suit, one for coat, the other for skirt, twenty cents must be sent. Address Fashion Department, "The Farmer's Advocate and Home Magazine," London, Ont. Be sure to sign your name when ordering patterns. Many forget to do this.

Address: Pattern Dept., "The Farmer's Advocate and Home Magazine," London Ontario.

When ordering, please use this form:—

Send the following pattern to:

Name

Post Office

County

Province

Number of pattern.....

Age (if child or misses' pattern).....

Measurement—Waist, Bust,

Date of issue in which pattern appeared.....



DESIGN BY MAY MANTON.
3020 One-Piece Tucked Corset Cover,
34 to 42 bust.

7544 Five Gored Under Petticoat,
22 to 34 waist.



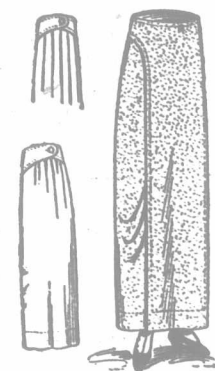
8080 Tam O'Shanter
Hat for Women, Misses
and Girls.



8015 Semi-Princess
Gown, 34 to 42 bust.



8073 Two-Piece
Draped Skirt,
22 to 30 waist.



8067 Two-Piece Skirt,
for Misses and Small
Women,
16 and 18 years.



8072 Fancy Blouse,
34 to 42 bust.



8071 Over-Waists in
Jumper and Bolero
Styles,
34 to 42 bust.



7725 Work Apron,
Small 34 or 36, Medium
38 or 40, Large 42 or 44
bust.



7991 Four-Piece Skirt,
22 to 30 waist.



8078 Blouse in Kimono
Style, 34 to 42 bust.



8064 One-Piece Peg
Top Skirt for Misses
and Small Women,
16 and 18 years.



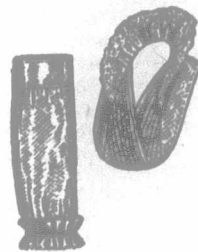
8064 Doll's Costume,
18, 22 and 26 inches
high.



DESIGN BY MAY MANTON.
7793 Sport or Mannish Shirt,
34 to 40 bust.
8022 Four-Piece Skirt,
22 to 30 waist.



8079 Three Piece Skirt
22 to 32 waist.



8074 Waist Garniture
with Under Sleeves,
One Size.



7986 Circular Closed
Drawers, 22 to 32 waist.

The Beaver Circle

Our Junior Beavers.

[For all pupils from the First Book to Junior Third, inclusive.]

Johnny Mouse and Susie Rat.

Johnny Mouse and Susie Rat
Were very bad indeed;
To Mamma Rat and Mamma Mouse
They paid but little heed.

They would not wear their rubbers
When they went out to play;
They would not go to bed at night;
They often ran away.

They would not learn their lessons,
To school they would not go;
And well-behaved young rats and mice,
They did not care to know.

So Papa Rat and Papa Mouse,
To teach them to do right,
They spanked them every morning,
And spanked them every night.

In spite of all these spankings,
The naughty things grew fat,
"They'd make a toothsome dinner,"
Said Granny Tabby-cat.

She hid behind the pantry door—
"This sad, I do declare;
But Susie Rat and Johnny Mouse
Have gone,—can you guess where?"

The Two Ducks.

(A story written for the little Beavers,
by May Lemendin.)

Once upon a time there lived a king and queen in a beautiful palace. They had three little children, two little boys and a little girl. The king did not like his two eldest children, Helena and Donald, but of little Walter he was very fond; he would do anything for him. This made the queen very sad, as she was very fond of all her children. They had everything a child could wish to have, dolls, books, trains, rocking-horses, and such like. They went out driving every day in their little pony carriage that was intended for them. This wicked king was a kind of magician; he could change things into different shapes. One day while the children were playing together he was thinking of a plan to get rid of Helena and Donald. So he sent Walter away with a message to his mother, and while he was gone he just touched the other two and changed them into two beautiful ducks. "Now," he thought, "I shall be rid of them."

When little Walter returned he asked where his brother and sister had gone, and his father told him they had gone to the nursery. No more was said about them till tea-time, and the queen asked where they were, and Walter said his papa told him they were in the nursery. They went up to call them down, but they were not there. The king, queen, and all the household searched for them, but they could not find them. The wicked old king pretended to be very sad, but all the time he was rejoicing because he'd got rid of them.

He got to be more and more fond of little Walter; he would take him wherever he went. But Walter was not happy; he would lie awake at nights thinking how he could find his brother and sister. About a week after, Walter was feeding the ducks, when he noticed amongst them two, more beautiful than the rest. He ran and told his mamma and papa. The king ordered them to be killed, as he knew they were Helena and Donald that he had changed into ducks. But the queen would not hear of it, so they were allowed to stay. They were more gentle and timid than the rest; they would feed out of Walter's hands, and let him caress and pet them. He used to call them his two beautiful pets. One day he went out as usual, and to his surprise they had gone. He went in crying, and his mother asked him what was the matter, and he told her. She tried to comfort him, but he would not be comforted. He went to bed that night a very sorrowful little boy. First thing in the morning he went out to see if he could see them, but they were nowhere to be seen.

Well, little Walter grew up to be a fine, handsome boy, loved by all who

knew him, and he gave back his love in return. He was both dutiful and affectionate to his parents in their old age. Soon after they died he determined to seek out his brother and sister, so he left the palace and set out. He travelled and travelled, but never came across them. He had many delightful sights to see, but best of all he loved to watch the ducks, thinking his two beautiful pets would be amongst them, but he never came across them. After two or three years' travelling he came home and married a lovely bride. They had a lovely little baby born to them, and were as fond of it as Walter's father was fond of him.

When Beauty was five years old, she used to go and feed the ducks for her father. One day she came running in, "Oh, mamma, papa, mamma, they will feed out of my hands and let me pet them." Mother and father went out, and, to Walter's surprise, they were the very same ducks he saw when he was a little boy. But still more surprising, one of the ducks spoke, and said they were Walter's lost brother and sister, but could not get their human shape unless they had some kind of stuff poured on their heads. This ointment was difficult to get, but they managed to get some and put on the ducks' heads. There was much rejoicing amongst them. But they all lived happily together afterwards.

THE LITTLE FISHERMAN.

(By Viola Seabrook.)

Once upon a time there lived two girls and a little boy. They lived in the woods. The girls' names were Bessie and Lily. The boy's name was Johnny. Bessie was twelve years old, Lily was nine, and Johnny was seven. One day Bessie said, "Johnny, you go and catch some fish for dinner," so Lily got some bait for his hook, and away Johnny went. When he got to the river, he dropped his hook in and caught one. He kept getting them like this till he had eight trout and two pike. It was about eleven o'clock. Johnny started home carrying his fish. "I wish I'd left them in the river," said Johnny. "Why, young man, where did you get the fish?" asked a man who got over the fence just then. "My sister told me to get some for dinner," replied Johnny. "You better let me carry them for you," said the man. "All right," answered Johnny, and handing him the fish, which were strung on a string, they walked on till at last they came to Johnny's gate. "Good-bye," said the man. "Good-bye; I thank you for carrying my fish," said

Johnny, and he walked up the lane, but before he got there, Bessie came to meet him. When she saw his fish, she said, "My own Johnny!"
Chatsworth P. O., Ont., R. R. No. 2.

Junior Beavers' Letter Box.

Dear Puck and Beavers,—I have been an interested reader of your Circle, and like it very much. I am very fond of reading. I have read the books named, "The Little Crusaders," "Mildred's New Daughter," "What Katy Did at School," and I am reading "Handy Andy." I go to school every day, except when I am sick or it is raining. My teacher's name is Miss McGill. I was away during the holidays at my Cousin Freeda Cunningham's. We have a little colt; we call it Freeda. Well, I think I must close now, and leave room for the other Beavers, so good-bye.
ETTA SPEER.
(Age 8, Class II.)
Caledon, Ont.

Dear Puck and Beavers,—As this is my first letter, I am just going to write a short one. I like reading your Circle very much. I live on an eighty-five-acre farm. My brother and I have a pony; we call her Daisy. She is very kind. Our father bought us a buggy a year ago. I have a little baby brother; he is a year and a half old; we call him Russell. My father is a farmer and horse-buyer. We have a pair of oxen. There is an old pussy at the barn with two sweet little kittens. I have three-quarters of a mile to walk to school. Our teacher's name is Mr. Benson. We play red line, drop the handkerchief, and blind-man's buff. As my letter is getting long enough, I will close.
VERA LEOTUS CRUSE.
(Age 10, Sr. II Class.)
Bewdley, Ont., R. R. No. 2.

Dear Puck and Beavers,—I have been an interested reader of "The Farmer's Advocate" for nearly two years, especially the Beaver Circle.

I had a garden of my own this year. I planted onions, peas, beans, and corn, and they grew beautifully. I also had a flower garden. I planted asters, poppies, nasturtiums, and pansies.
I live on a big farm, and I love the country. Wishing the Beavers every success.
ALICE BAMFORD.
(Age 11, Class III.)
Muncy, Ont.

Dear Puck and Beavers,—My uncle has taken "The Farmer's Advocate" for over forty years, and I like to read the stories. I have a little pup which likes me very much, and his name is Ben. He would like to go to school with me, but I have to tell my big sister to call him

back. I take him out in the garden when I go to pick the pears, and he will try to get them before me. We go to get the cows every night, and we will make them run all the way up to the barn, then Ben will chase you. He likes to have some fun, and when you begin to run he will run after you, and if you stop he will stop and jump up at you. He is only a little pup, and he will not hurt you. I have a little pony, and I go out and give her water often. I go up beside her and give her something to eat. Wishing your Circle every success, your faithful reader,

FLORENCE BURNS (age 10, Sr. II).
Richwood, Ont.

Honor Roll.

Etta Arnott, Almonte, Ont.
Beulah Bailey, Manitoulin Island.
Verna Vansickle, Ancaster, Ont.
Stella Cann, Exeter, Ont.
Cecil Baxendale, Grand Valley, Ont.
Eva Secord, Simcoe, Ont.

Passing "Colds" Around.

We shall have to stop passing that "cold" around. Everybody now agrees that "colds" are contagious, regardless of contributing factors. Many health departments now require physicians to report all cases of pleurisy, just as diphtheria or pneumonia, other members of the indoor-plague family, are reported; and this action has given a great impetus to the campaign against the great indoor plague.

By "indoor plague" we mean the much too common "cold." It is so positively an indoor infection that good authorities declare we cannot possibly catch any of the respiratory diseases out in the open. Proximity to a "cold" sufferer indoors is essential to the production of fresh cases of coryza ("head cold"), sore throat, tonsillitis, quincy, bronchitis, pneumonia, diphtheria, tuberculosis, or pleurisy. That is, proximity to a careless patient. The reason why these diseases cannot be acquired outdoors, regardless of the weather, is that the well-recognized causative bacteria cannot survive outside the body in a cold place or in direct sunlight. Nothing is so hateful to a pneumonia germ, for instance, as snappy, cold air, or bright sunshine.

This pneumonia germ, called the pneumococcus, is the worst enemy of civilization to-day, causing more illness, discomfort, and deaths, than does the notorious tubercle bacillus itself. Not only is it the seed of pneumonia in children and adults, but also of most cases of tonsillitis, quincy, simple "head cold," bronchitis, pleurisy, chest abscess; and a



The Joy of a Christmas Doll.

"Have You a Little 'Fairy' in Your Home?"

MERRY CHRISTMAS to all the little Fairies in all the happy households in this goodly land. And Merry Christmas to all their proud parents, from the makers of

FAIRY SOAP

It is the "little Fairies" of this country, and their parents, who have helped us to make Fairy Soap so popular.

Fairy Soap is always white, clean, pure and sweet—the oval, floating cake fits the hand—and we couldn't make it cost any more unless we hid its goodness with expensive scents.

Include Fairy Soap in your good resolutions for the New Year.

THE N.K. FAIRBANK COMPANY LIMITED MONTREAL



frequent cause of mastoid and ear inflammations, abscess formation of the appendix, valvular heart inflammation, and sometimes fatal peritonitis.

The versatile microbe does not stop there, but in many instances infects the joints and produces a characteristic attack of inflammatory rheumatism! We could truthfully paint the character of the pneumococcus in darker hues, but enough has been said to show that he has much to answer for. The pneumococcus, aided by minor collaborators, is briefly the germ that puts the catch in "catching cold."

The most startling thing about this much too common "cold" germ is, however, in virulent, that is, businesslike form, in the mouths, throats, or nasal passages of twenty per cent. of all adults. In a tame form we find him present in practically every mouth—especially where the teeth are neglected or the tonsils diseased.

How shall we stop spreading "colds"?

Stop spitting, except in proper receptacles which will dispose of the expectoration in a sanitary manner. Don't sleep two in a bed. No open-face sneezing or coughing. Let "cold" sufferers use separate dishes and utensils. Boil their handkerchiefs before tossing them into the wicker basket. See that children swap neither pencils nor gum nor candy. Don't isolate the "cold" victim as you would a leper; just be infinitely clean—medically aseptic—in your relations with him.

But most important of all, forget your weather-phobia. Come on out—the air is fine!—William Brady, M.D. in The Independent.

Wild Men of Borneo.

My landing-place was Kuching, but I proceeded across the bay to the mouth of the Rejan River, along which I continued for about ninety miles to the Island of Sibuan, where I met the only American I was to find during my entire travel across Borneo. He was a former missionary, who had given up hope of converting the indifferent natives, and was conducting a prosperous rice-growing plantation, having imported about 4,000 Chinese for the purpose. Proceeding eighty miles further, I reached Kapit, where I obtained canoes and engaged thirteen natives as guides for my trip into the interior. They represented three different tribes and comprised one Punan, who was a tree-dweller and head-hunter; two Kayans, and the rest Lanans. For two months' assistance I gave the band what would in American money aggregate \$15, and all of the natives who aided me in my Borneo travel they were the only ones that asked compensation. They were typical of the Borneo tribesmen, about five feet tall, good looking, with straight black hair, and with remarkable muscular development.

The women, strange to say, were far more homely than the men, and I saw but one good-looking girl during my entire trip across Borneo. She was the wife of a Kayan raja, and he, with the deference that my strange appearance excited, offered her to me as a present.

As we proceeded to penetrate farther into the jungle, where no white man had ever passed, it was necessary to send the natives ahead with their peculiar knife-like blades, and to hew down the heavy underbrush and soft but thickly growing trees, for in such surroundings, where it was impossible to see a foot on either side, it would have been obviously impossible to have made any advance. It was by cutting down the trees, too, that the reptiles and animals, frightened at this first intrusion into their dense woodland domain, would dart across the cleared area, and thus make possible their capture.

For weeks we continued thus, and I shall never forget, as we approached the heart of the interior, the sensation that was mine, when through the jungle blackness, we suddenly saw an opening ahead, and came upon one of the strangest of strange villages, to be found only in such a land as Borneo.

The first object to meet the eye was a long, grotesque-looking house, built of wood on piles about fifteen feet off the ground, an elevation necessary, as I afterward learned, not only to lessen the danger from floods, but also to prevent the attacks of wild animals, such as elephants and rhinoceroses, reptiles, and the sudden invasion by rival tribes of

head-hunters. Each village contains one house, and each house shelters from twenty to three hundred brown-skinned natives. Throughout the length of the long house is a narrow hallway with crudely constructed doors leading to the various rooms. Each family occupies one room. Occasionally one will find a larger village having three such houses, which may contain as many as a thousand natives; but these are rare. A pole, in which notches had been cut, served as a ladder, reaching to the house. The supporting beams and the main doors were magnificently carved, showing that even with their roughly-made blades these animal-like natives, who had never known the influence of civilization, were master artisans.

As we approached the house the natives came swarming out in numbers, and while they paid little or no attention to my brown-skinned escorts, they gazed at me in utter wonderment. As to whether the natives or myself had the greater misgivings I am unable to say. My sensations were indescribable. Here I was, in the heart of Borneo, surrounded by a horde of strange, brown-skinned men, leading animal-like existences, and whose chief diversion seemed to be proving themselves brave warriors by chopping off the heads of rival tribesmen and passing them down to posterity as trophies of their valor. I knew that they had never seen a man of white skin before, and whether they would make a sudden dash to claim the honor of my head was a matter that gave me some little concern.

Soon I was being examined from head to foot by the entire band. They ran their fingers through my hair, for it is light and somewhat wavy, while theirs was straight and black; they seemed to take particular delight in feeling of the white skin of my face, and could not believe it was real. They felt of my ears and nose, of my arms, hands and fingers, my legs, and even my shoes, the significance of which was beyond their grasp.

For a moment a consultation was held among themselves, and somehow I felt my fate lay in the balance. Then, with their tribal incantations, they began lavishing upon me presents of many kinds—rice, fruit, and even chickens, which are both scrawny and rare, their use being reserved for strictly ceremonial occasions. Then I learned that I was a god who had come into their midst on the propitious mission of increasing their crops and healing their sick; that, at least, was the conclusion of the natives, and as the verdict was somewhat better than that of decapitation, I accepted it gladly and entered upon my duties and dignity as a divinity.

As a libation fitting to what they considered a sacred personage, the savages brewed a special liquor made of rice and called "ararak." The drink is indulged in only on extraordinary occasions. Mr. Streeter found the concoction sweet, thick, and colorless, with a flavor somewhat like "Benedictine," and not over-intoxicating. He gave them little trinkets, which strengthened their belief that he had supernatural powers. They carried their sick to him and begged him to heal them. To continue:

In my medicine chest I had a large quantity of quinine, alcohol, fever pills, and antiseptic solutions, and these I found of invaluable worth. Loathsome disease, not unlike leprosy, was the scourge of the interior, and three-fourths of the population, from children to aged people, were afflicted with it. Though a novice at medicine, I treated as many as fifty natives a day, and over a thousand during my entire stay. Malaria and kindred ailments, caused by mosquitoes, centipedes, and various insects, had caused much sickness among these natives, over 200 miles in the interior, and my medicines were constantly in demand. Quinine, despite its bitter flavor, the natives ate like candy. The "white man's medicine," they called it, and so great was their fondness for it that even the well would feign illness to obtain it. Observing that I used alcohol without evidencing pain after being tattooed, they attributed it to magic powers and begged that a little be applied to their arms.

Their religion seemed to be a vague one. I observed a few totem-poles, but these were apparently offered for a propitious rice crop. For their dead the

**Important Auction Sale of
SPLENDID FARM**

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The farm of DAVID SMELLIE, late of the Township of Vaughan, County of York, being Lot 8 in the 2nd Concession of Vaughan, and containing 200 acres, more or less, will be offered for sale by auction, on the property, at 2.30 p.m. on

Thursday, December 18th, 1913

About 175 acres are cleared, and the balance is timbered with good hard wood; good soil, in excellent state of cultivation, large brick house, two large barns and driving house and other buildings, all in good repair; two orchards, sewer, wells, three cisterns, good fences and under drains. The property is about a mile and a half west of Thornhill Village, which is on Yonge street, about five miles north of the limits of the City of Toronto. This one of the best farms in Ontario, having won both gold and silver medals in Provincial competitions. The property will be sold subject to a reserve bid.

On same day and at same place all the deceased's household furniture, farm stock, implements and other goods and chattels will be offered for sale.

Further particulars and conditions of sale will be made known at the time of sale, or will be furnished by the auctioneer,

J. H. PRENTICE, 239 Balliol St., Toronto (North 2292)
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Learn why. Most Canadian tailors buy goods in small lengths. Four profits come out of the cloth before it reaches their hands. You pay these four profits when you buy from them.

You save these profits when you buy from us, because we purchase all suitings direct from the mill, and give you the benefit of our tremendous buying power.

Here's a fair offer: Send us your name and address on the coupon below, and we will mail you, absolutely free, 72 pattern pieces of the finest English suitings you ever saw. With the patterns will come a booklet telling all about the successful Catesby made-to-measure tailoring system.

Read it. You'll understand why hundreds of shrewd, well dressed Canadians buy their clothes direct from us in London, and save half of what they would otherwise have to pay their local tailor.

Don't put the matter off—you'll soon be needing a suit. Send now, while the thought is in your mind.

Remember, your suit or overcoat comes right to your door, all duty and carriage charges paid by us. And that every suit is guaranteed to give absolute satisfaction. Orders are shipped five days after we receive them in London.

All you need to do now is sign and mail the coupon. Patterns will be sent by return mail. If you don't want to cut this paper, write a postcard or letter for the samples and we will send them just the same. But to get them, you must mention the London Farmer's Advocate.

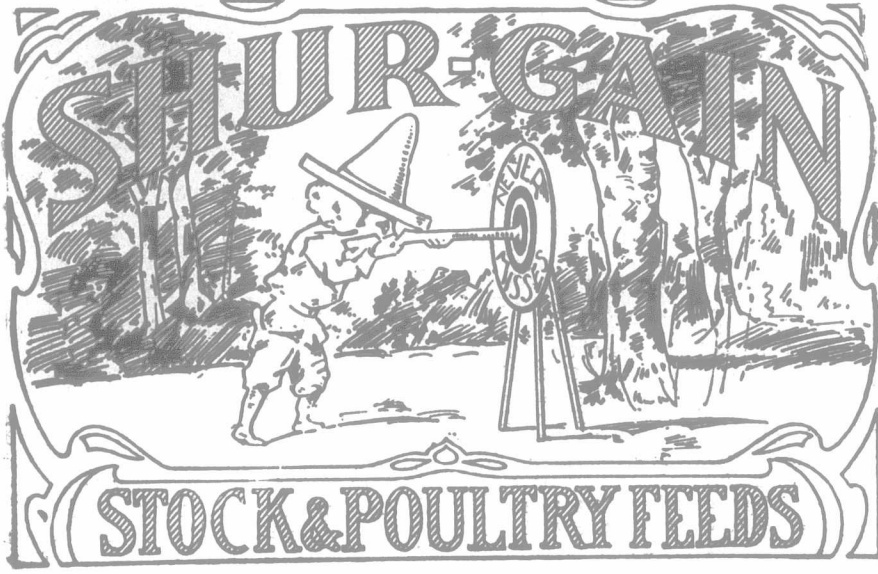
GATESBYS LTD.
(Of Tottenham Court Road, London, England).
110 West Wellington St., Toronto.

The "BURLINGTON"—This shows the most popular style of suit worn by well-dressed men in Canada. The materials used are specially selected for this shape of suit. \$12.50. Duty Free and Carriage Paid.

Mail this coupon now and be convinced

MESSRS. GATESBYS LTD. (of London), Dept. "A," 119 W. Wellington St., Toronto, Ont.: Please send me your new season's Style Book and 72 pattern pieces of cloth. I am thinking of buying a suit—overcoat.*
Full Name.....
Full Address.....
*If you only want overcoat patterns, cross out the word "suit."
If you only want suitings, cross out the word "overcoat."
London Farmer's Advocate. Coupon No. 6.

GUNNS



Beef Scrap Charcoal Chick Scrap Poultry Bone
Beef Meal Bone Meal Oyster Shell Calf Meal
Crystal Grit Dairy Meal Hog Meal

Or any other line of stock and poultry food. Write:

GUNNS LIMITED,
West Toronto, Ontario

Cream Wanted

Highest markets—unlimited demand. Toronto consumes daily the milk and cream from over 14,000 cows, and the butter from over 70,000 cows. We need your cream and your neighbors'. Write:
TORONTO CREAMERY CO., Limited
Toronto, Ontario

You should know the reason why every unbiased master musician calls the
Sherlock-Manning 20th Century
"Canada's Biggest Piano Value"
Write to-day for particulars.
Sherlock-Manning Piano Co.
London, (No Street Address Necessary) Ont.

greatest respect is shown, and they speak of their departed reverentially, and in hushed tones. They care tenderly for their sick, and after death the remains are placed in coffins, handsomely carved and decorated on the top of trees.

Marriage is a festive occasion, in which all join merrily. After a short trial union, if the contracting parties agree, they go through a peculiar native rite, and the couple continue to live together, seemingly happy, until death. Loin clothes form the only article of wearing-apparel used by the natives, who are, I believe, more modest and moral than many civilized people in metropolitan centers. Their time is consumed generally in raising rice or hunting. The women work with the men, take care of the rooms in the "long house," and carry water and firewood. The men, armed with spears or long steel blades skillfully made of metal ore, will go on hunting expeditions or venture forth after the heads of some rivals against whom they have a grievance, and remain six or nine months.

For all their wild surroundings, the natives are usually keen and eager for learning. They like to talk and ask questions, and though they have no written language, are anxious to learn of strange lands and people. They are fond of tattoo designs, which are made with India ink and tobacco juice. From this combination many die of blood-poisoning. Special designs are arranged for the neck, the shoulders, the arms, the chest, and the legs, each tribe having its own emblems. While the men are tattooed at various places over the entire body, the women are distinguished by strange-looking emblems extending from the waist to the knees. The entire process takes over ten years, and the pain suffered is intense.

To provide for further ornamentation, a child, on reaching the age of six months has the lobe of the ear punctured and a stick inserted. More splinters of wood are gradually added, until at the age of two years a circular mass of splinters can be seen in the child's ear five inches in diameter, and having but a thin rim of flesh about it. A little earring is then inserted, and larger ones gradually added until the child has reached the age of 13, when he has three or four large bone pendants hanging to his shoulder.

Anxious to press on, I sent my original guides back, because they were afraid of a tribe of especially savage head-hunters who lived in trees somewhat farther into the interior, and provided with a new band of volunteers, left the village where I had been so royally treated. By following the river route in crude, native canoes, my progress was expedited, but the heat was so intense, that it was necessary to jump overboard about every half hour to prevent a heat stroke. As the river was full of man-eating crocodiles, there was considerable risk, but the danger was minimized by the natives, who kept splashing the paddles, in that way frightening the crocodiles away.

Leaving our canoes, we resumed again our inland travel, through a wilderness of palm and beetle-nut trees from 300 feet high and five feet in diameter to smaller trees but 20 feet high. The underbrush was still dense and heavy, and it was impossible to see even our feet. Thorns and vines were encountered, but the greatest source of annoyance was from the wood leeches, one to three inches in length, that would drop into your shoes or over your body. The sting was accompanied by a persistent burning sensation, like that from a red-hot iron. While not poisonous, an itching irritation develops that continues for months afterward. We found it very difficult, owing to the jungle wilderness, to obtain the specimens we were after, but by chopping trees and clearing a path, I managed to get about 100 snakes, frogs, and lizards, and my persistency was subsequently rewarded by the finding, in their deep, isolated jungle lair, my much-sought-after "clouded leopards."

My native escorts, who were ahead of me, suddenly turned back in evident fear, and peering ahead, I discovered rude, thatched huts in the trees, but a short distance away, the homes of the fiercest, yet most cowardly, savages of entire Borneo; and it was with much difficulty and coaxing that I could pro-

vail upon the natives to go forward. My presence caused much excitement among the tree-dwellers, who peered down, with their shining black little eyes, but their wonderment soon gave way to curiosity, and they were soon subjecting me to an examination similar to that I had previously received. My rifle was to them also a cause of much wonder. They treated me kindly, yet they were palpably of a lower order, and more animal-like, than those of the village I had previously visited. They were somewhat smaller, wider, and, from the rows of heads that were weirdly drying over a fire, much more savage than their rival tribesmen. Their entire jaws were tattooed with hideous designs.

The main weapon of defense was the deadly "blowpipe," through which arrows, with poisoned tips, can be blown with deadly accuracy a hundred feet in a single second. I have brought some of these arrows home. They are about five inches long, as thick as a match, and have a piston and appliance for catching the air when blown from the seven-foot pipe used by the savage. So expert are the Dayaks, or tree-dwellers, in their use that they can hit a bird on the wing, or invariably strike a vital spot of a wild boar or a human being. The virulence of the poison at the tip of the arrow is such that death will result in seven seconds. The poison is obtained from a resinous gum.

The Dayaks also have long, narrow stiletto-like blades, made from steel ore, and these are used generally in their attacks on rivals at night. Their desire for the heads of rivals is fanatical. With characteristic cowardice, they will make their attacks generally under cover of darkness, or when a rival tribesman has his back turned. Old men working in the rice flats are often the object of attack by the savage Dayak, who will suddenly dart out, slash off a head, fit back into the woods, and be gone within a few seconds. Returning to his village, he will triumphantly display his gruesome trophy, and will be acclaimed a warrior for a while.

Before he can marry or be considered adult, the Dayak must bring home at least one head. The more he obtains the higher is his standing in his village. The night before I arrived five rival tribesmen had been decapitated, and their heads were being subjected to the drying process when I made my appearance. One of the favorite methods pursued by the Dayak in acquiring his trophy is to wait in a tree until a member of another tribe chances to pass, and then suddenly drop upon him. Their most highly prized trophy, however, is the head of a Chinaman. Many Chinese arrive in Borneo as rice workers, and frequently penetrate far into the interior, where almost certain death awaits them. So great is the glory of taking a Chinaman's head and pigtail that a special feast is arranged in honor of the warrior who has performed the deed.

The superstitious respect they had for me probably saved my life and undoubtedly saved the lives of my fifty-two native escorts, for they were from a rival tribe, and nothing else could have saved them from swift and merciless death.—From the Literary Digest.

SHARE YOUR ROSES.

A tourist brings this pleasant story about Andrew Carnegie from Scotland: At Skibo Castle Mr. Carnegie had a beautiful rose garden. There were thousands of red and white and yellow roses always blooming there, and the villagers were free to saunter in the garden paths to their heart's content.

One day the head gardener waited upon Mr. Carnegie.

"Sir, I wish to lodge a complaint," he ventured.

"Well?" and the master waited.

"Well, sir, I wish to inform you that the village folks are plucking the roses in your rose garden. They are denuding your rose trees, sir."

"Ah," and there was a note of deep satisfaction in Mr. Carnegie's voice, "so my people are fond of flowers, are they, Donald? Then you must plant more!"

"What are you thinking about?"
"Just nothing."
"You always were an egotist."

News of the Week

CANADIAN.

A deputation representing the Women's Institute of Ontario, waited on Hon. R. A. Pyne, Minister of Education, asking that medical and dental inspection of schools be made compulsory.

Pictures valued at \$4,375 have been purchased for the National Gallery at Ottawa, and will be loaned to the various public galleries throughout Canada from time to time. Among the artists whose canvases have been purchased are: A. Suzor Cote, Harry Britton, J. W. Beatty, Laura Muntz, Mrs. Mary Reid, and Miss Florence Carlyle.

Nine unidentified victims of the recent lake disaster were buried at Kincardine and Goderich on November 27th.

The fifth election within two years in East Middlesex, Ont., resulted in the election of Mr. John McFarlan, Conservative candidate, over John W. Laidlaw, fusion candidate of the Liberal and Temperance parties. Mr. McFarlan's majority was 287.

BRITISH AND FOREIGN.

At time of going to press, despatches from Mexico show that the rebels in Mexico have gained continuously during the week. After ninety-four hours heavy fighting, the federal troops were defeated by General Villa at Juarez, near the boundary of Texas. Subsequently Mazatlan, the most important port on the west coast, was taken. From Juarez, General Villa moved south to attack the federal stronghold at Chihuahua.

Miss Forbes-Robertson, a sister of Sir J. Forbes-Robertson, the famous actor, has been released from prison on account of her condition, after going on hunger strike. She was committed for smashing a window when Premier Asquith visited Birmingham, in July.

The largest oil-carrying vessel in the world, the San Hilario, was launched in England on Nov. 27th. She has a capacity of 15,000 tons of oil.

A Ballad to a Friend.

More in need was I of a faithful friend, And it seemed to me that life Had come to its much desired end— Just then God gave me a wife.

I had seen the beauty of fairy things, And seen the women walk; I had heard the voice of the seven sins And all the wonderful talk.

Ah, the promising earth that seems so kind And the comrades with outstretched hand, But did you ever stand alone In a black, forsaken land? Then the wonderful things that God can do One comes to understand—

How He turns the desert dust to a dream, And the lonely wind to a friend, And makes a bright beginning Of what had seemed the end: 'Twas in such an hour God placed in mine The moonbeam hand of a friend. —Richard Le Gallienne, in Smart Set.

A newly rich woman, who was anxious to make a favorable impression in her neighborhood, decided to show her collection of antiques to the bishop when he called. The time came, and one by one she displayed the whole collection, giving him the history of each piece. Finally she came to the most highly prized article in the lot.

"There," she said, pointing impressively to an old yellow teapot, "that teapot was used in the Boston Tea-party."

BABY'S OWN SOAP

Many happy Mothers

are using Baby's Own Soap in the nursery not merely because they themselves were washed with it, when infants, but also because experience has shown that no other soap will help the skin so much—make it so white, so smooth—be so pleasant to use—and cost as little.

Baby's Own Soap is best for Baby and best for you.

Imitations and substitutes are made as cheap as possible; Baby's Own is as good as possible. 5-4-13

ALBERT SOAPS LTD., Mfrs., MONTREAL.



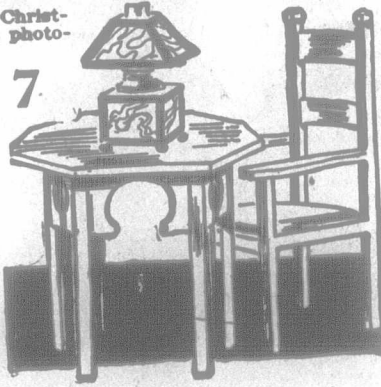
Gift Furniture

Hundreds of the best suggestions for Christmas presents will be found in our large photo-illustrated

Catalogue No. 7

Everything in it eminently suitable for gift-giving. We pay freight to any Station in Ontario at Catalogue prices. Write today to

Adams



Furniture Company, Ltd., Toronto

It Might Be Well to study the Prospectuses of a number of Colleges before sending your daughter to any.

Alma (Ladies) College

Has been endorsed as the proper School-Home for their daughters by thousands of careful parents after serious investigation. Delightful climate (500 miles farther south than Winnipeg). Varied Curriculum. Experienced Faculty. Remarkably effective system of Physical Culture. Buildings and equipment are an endowment costing over \$150,000. Write the Principal for Prospectus.

Robert I. Warner, M.A., D.D. St. Thomas, Ont.

Moles, Warts,

Hair on the face, neck and arms, red veins, brown growths on elderly people's faces, and other disfiguring blemishes can always be permanently eradicated in an almost painless manner by our antiseptic method of electrolysis. Booklet "F" and sample of toilet cream mailed free.

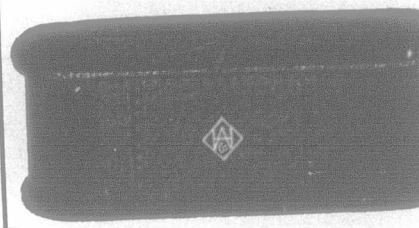
HISCOTT INSTITUTE, 61 College St. Toronto. Established 1892.

Milk Wanted

For milk route in Windsor WALTER N. KNIGHT Windsor, Ont. 28 Aylmer Ave

STEEL TANKS

All styles and sizes. Ask for catalogue No. 24.



THE HELLER-ALLER COMPANY Windsor, Ontario

Please mention "The Farmer's Advocate."

Winter Song.

By Duncan Campbell Scott. Sing me a song of the dead world, If the great frost, deep and still, Of the sword of fire the wind hurled On the iron hill.

Sing me a song of the driving snow, Of the reeling cloud and the smoky drift, Where the sheeted wraiths like ghosts go Through the gloomy rift.

Sing me a song of the ringing blade, Of the snarl and shatter the light ice makes, Of the whoop and swing of the snow-shoe raid Through the cedar brakes.

Sing me a song of the apple-loft, Of the corn and the nuts and the mounds of meal, Of the sweeping whirl of the spindle soft, And the spinning wheel.

Sing me a song of the open page, Where the ruddy gleams of the freight dance, Where bends my love Armitage, Reading an old romance.

Sing me a song of the still nights Of the large stars, steady and high, The aurora darting its phosphor lights In the purple sky.

Mockers.

By Louis Untermeyer. God, I return to you on April days When along country roads you walk with me:

And my faith blossoms like the earliest tree That shames the bleak world with its yellow sprays—

My faith revives when, through a rosy haze, The clover-sprinkled hills smile quietly, Young winds uplift a bird's clean ecstasy.

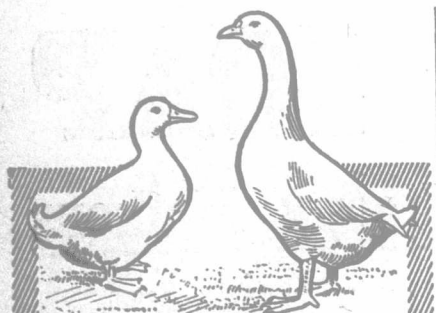
For this, O God, my joyousness and praise.

But now—the crowded streets and choking airs, Thy squalid people bruised and tossed about:

These, or the overbrilliant thoroughfares, The too-loud laughter and the empty shout;

The mirth-mad city, tragic with its cares. . . .

For this, O God, my silence—and my doubt.



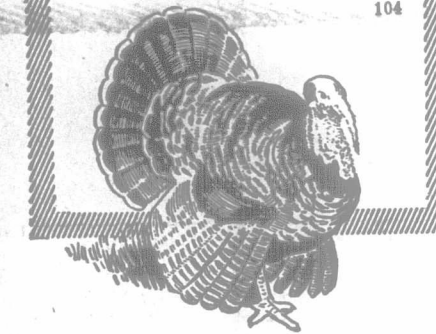
To Prepare For Market

COMMENCE early, feeding your young chicks, goslings, ducklings and turkeys, on Harab Chick Feeds. As they get older change to Harab Beef Meal, Harab Beef Scrap, Harab Poultry Bone and Harab Balanced Grain Feeds. These

Harab Poultry Foods

will keep your birds in excellent condition and put flesh on them quickly. Birds raised on these foods command the top-notch price, because of the firmness and excellence of their flesh. Most leading poultry men are now using them regularly. Write for prices and interesting Poultry Food Booklet. If your dealer will not supply Harab Poultry Foods, write us direct.

The Harris Abattoir Co., Ltd.
Poultry Food Department
Strachan Ave.
Toronto, Canada



Cunard Line

CANADIAN SERVICE

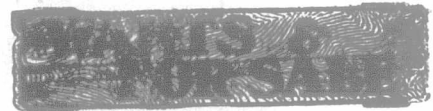
Immigration Department

Special interest to Farmers' Clubs. We secure "help" for farmers from the country districts of the British Isles.

Requisitions must be filled up. Copies sent on application. Average time to get you "help," about six weeks.

No fee charged. Only regular fare on ocean and rail to pay.

Write for further particulars.
Cunard Steamship Co., Limited
114 King Street West
TORONTO



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

TERMS—Three cents per word each insertion. Each initial counts for one word and figures for two words. Names and addresses are counted. Cash must always accompany the order. No advertisement inserted for less than 50 cents.

A FEW female Scotch Collie puppies at \$3 each. Roy Price, Box 35, Port Rowan, Ont.

EXPERIENCED Stockman by year, married, capable of managing the farm, reference required, apply: J. H. Patric, Ilderton, Ont.

Wanted immediately—Second-hand churn, either 500- or 900-pound capacity. Also a Farrington Pasteurizer if in good condition. The Scotland Creamery, Scotland, Ont.

Please mention "The Farmer's Advocate."

The Bad Year.

By E. W. Thomson.

May, blighted by keen frosts, passed on to June;
No blooms, but many a stalk with drooping leaves,
And arid summer wilted these full soon,
And autumn gathered up no wealthy sheaves;
Plaintive October saddened for the year,
But wild November raged that hope was past,
Shrieking, "All days of life are made how drear—
Mad whirl of snow! and Death comes divinely fast."
Yet sane December, when the winds fell low,
And cold, calm light, with sunshine tinkled clear,
Harkened to bells more sweet than long ago,
And meditated in a mind sincere:—
"Beneath these snows shining from yon red West,
How sleep the blooms of some delighted May,
And June shall riot, lovely as the best
That flung their odors forth on all their way:
Yes, violet Spring, the balms of her soft breath,
Her bird-like voice, the child-joy in her air,
Her gentle colors"—sane December saith,
"They come, they come,—O, heart, sigh not, 'They were.'"

One Omitted Detail.

Notwithstanding all the complaints about the carelessness of the ordinary waiter and all the lokes about the magnificence of the head waiter, every one knows that the business of the "poor knight of the napkin" is not an easy one. At any rate, in a story told by Seymour Hicks, of a New York restaurant, one must be glad that the waiter finally got his "innings."

Once, sitting in my usual corner at this restaurant, I heard a much-harassed waiter score heavily off a tiresome customer who was ordering oysters. The conversation that took place was the following—the wretched waiter turning to go and execute the order and being brought back each time:

"Say, waiter, I want a dozen blue-points."

"Yes, sir."

"O waiter—"

"Yes, sir."

"Steamed, you know."

"Yes, sir."

"O waiter, you'll see that they're not done too much."

"No, sir."

"Oh, and waiter—"

"Yes, sir."

"Will you see that they put just a squeeze of lemon in each shell?"

"Yes, sir."

"Oh, and waiter, just the smallest amount of butter over them when you serve them."

"Yes, sir."

"And waiter—"

"Yes, sir."

"Don't forget the pepper and salt."

"This last remark was too much for the poor knight of the napkin. Turning back again, of his own free will, he said:

"And, sir—"

"Well?" answered the customer.

"Would you like them with or without?"

"With or without what?"

"Pearls, sir," said the waiter, and disappeared.

"The impudence of some people!"

snapped Mrs. Parvenue. "She told somebody I did my own washing!"

"Well," replied Mrs. Manor innocently, "whose washing do you do?"

Vicar—"Amid all your troubles, Mrs. Grundy I am pleased to see that your gratitude to Providence does not fail."

Mrs. Grundy—"No, sir; rheumatism is bad, indeed, but I thank 'eaven I still 'ave a back to 'ave it in."—"Life."

Little Mary sat seriously thinking out some hard problem, when she remarked,

"Grandma, I don't know yet which I'll be, a nurse, or a storekeeper, or get married and be nothing."

Hate.

By James Stephens.

My enemy came nigh,
And I Stared fiercely in his face.
My lips went writhing back in a grimace.
And stern I watched him with a narrow eye.
Then, as I turned away, my enemy,
That bitter heart and savage, said to me:
"Some day, when this is past,
When all the arrows that we have are cast,
We may ask one another why we hate,
And fail to find a story to relate.
It may seem to us then a mystery
That we could hate each other."
Thus said he,
And did not turn away,
Waiting to hear what I might have to say,
But I fled quickly, fearing if I stayed
I might have kissed him as I would a maid.

The People of the Whirlpool.

[Serial rights secured from The Macmillan Publishing Co., Toronto and New York.]

Chapter VIII.

THE SWEATING OF THE CORN.

April 14. Every one who has led, even in a partial degree, the life outdoors, must recognize his kinship with the soil. It was the first recorded fact of race history embodied in the Old Testament allegory of this creation, and it would seem from the beginning that nations have been strong or weak, as they acknowledged or sought to suppress it.

I read a deeper meaning in my garden book as the boys' humar calendar runs parallel with it, and I can see month by month and day by day that it is truly the touch of Nature that makes kindred of us all—the throbb of the human heart and not the touch of learning or the arts.

Everything grows restless as spring comes on—animate, and what is called inanimate, nature. March is the trying month of indecision, the tug-of-war between winter and spring, pulling us first one way and then the other, the victory often being, until the final moment, on the side of winter. Then comes a languid period of inaction, and a swift recovery. When the world finally throws off frost bondage, sur and the earth call, while humanity, indoors and out, in city tenement as well as in farmhouse, hears the voice, even though its words are meaningless, and grows restless.

Lavinia Dorman writes that she is feeling tired and low-spirited, the doctor has advised a tonic, and she misses the change of planting her back-yard garden. Down in the streets the tenement children are swarming in the sunny spots and dancing to the hand organs. I saw them early last week when I was in town for a few hours.

In one of the downtown parks the youngsters were fairly rolling in dirt, and rubbing their cheeks on the scanty grass as they furtively scooped up handfuls of cement-like soil to make mud pies, in spite of the big policeman, who, I like to think, was sympathetically blind.

The same impulse stirs my boys, even though they have all outdoors around them. They have suddenly left their house toys and outdoor games alike to fairly burrow in the soil. The heap of beach sand and pebbles that was carted from the shore and left under an old shed for their amusement, has lost its charm. They go across the road and claw the fresh earth from an exposed bank, using fingers instead of their little rakes and spades, and decorate the moist brown "pies" they make with dandelion ornaments.

A few days ago the Vanderveer boy came down to play with them, accompanied by an English head nurse of tyrannical mien, and an assortment of coats and wraps. The poor little chap had been ailing half the winter, it seems, with indigestion and various aches, until the doctor told his mother that she must take him to the country and try

Every farmer should send to The Metal Shingle & Siding Co., Ltd., Preston-Ontario for a copy of their new book "The Steel Truss Barn." It's free. No timber for new barns should be cut before reading this book. Send today

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 advertisements inserted for less than 50 cents.

BUFF Turkeys for sale, can supply pairs not a skin. Chas. A. Dunkin, R. F. D. 1, Victoria Ont.

EXTRA fine Toulouse geese for sale; \$3 for ganders, \$2 for geese. Phillip Ferris, Arner, Ont.

FOR SALE—Emden Geese, White Holland Turkeys, White Indian Runner Ducks. Apply to Herbie Sider, Forks Roads, Ont.

FORTY-FIVE varieties fancy poultry. Handsome catalogue free. S. A. Hummel, Box 23, Freenort, Illinois

HANDSOME purebred cockerels, Rhode Island Reds; bred to lay and fit to win. B. Armstrong, Codrington, Ont.

LIGHT Brahma Cockerels. Beauties \$2.00 to \$5.00 each, must make room. Harry Wilson, Box 798, Collingwood, Ontario.

MAMMOTH, Imperial, Pekin and White Indian Runner ducks, Silver Campines, Barred Rocks, imported stock. L. J. Gibbons, Iroquois, Ont.

MAMMOTH Bronze Turkeys bred from imported stock, large bone, big frame, finely marked. Mrs. W. R. Armstrong, New Market, Ontario.

Wanted—Hides to tan for robes, coats, etc. Horse hides, cattle hides and furs. Red skins for buck, or with the hair on. No leather tanned. Send them to me. B. F. BELL, Delhi, Ont.

WANTED—Second hand straw-cutter, hand power good condition, state capacity and price. snapshot or cut appreciated. Address: E. J. GODDIER Maxville, Glengary County, Ontario.

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.

You Can Earn a Good Living Raising Poultry

Out living expenses—Increase your income thousands of dollars this way with SUCCESSFUL INCUBATORS SUCCESSFUL BROODERS Life Producers—Life Preservers High-grade poultry—all leading varieties. Why don't you do the same? Learn how easy it is to start. Booklet "How to Raise 48 out of 50 chicks"—10c. Catalogue FREE. Write today. Address: Des Moines Incubator Co., 608 Second St., Des Moines, Ia.

Taxidermy Mount Birds Book FREE We teach you by mail to stuff and mount all kinds of Birds, Animals, Game-Heads. Also to tan skins and make rugs. Decorate your home with your beautiful trophies, or command big income selling specimens and mounting for others. Easily, quickly learned in spare time by men and women. Success guaranteed. Write today for our free book "How to Mount Birds and Animals" absolutely free. N. W. SCHOOL OF TAXIDERMY 303 Elmwood Bldg., Omaha, Neb.



Dainty, Disappearing Doughnuts.
 Devoured near as fast as you make 'em.
 Golden—tooth-teasing—able-bodied nuts of dough.
 Made from dough that Tastes Like Nuts, you know.
 Use FIVE ROSES flour.
 Get that individual toothsome-ness of Manitoba wheat kernels.
 Doughnuts with a Palate-Pleasing Personality.
 See 'em bob up in the rich deep fat—swelling, soft-textured.
 A hole entirely circled with Light Digestible Food.
 Fat without being fat—for FIVE ROSES is the sturdy glutinous flour that resists fat absorption.
 Just enough to brown deliciously, to crisp quickly.
 No greasiness, heaviness, sogginess.
 Filling a vacant place so pleasantly with never an outraged stomach.
 Like these make YOURS.
 Use FIVE ROSES.

Five Roses Flour

Not Bleached



Not Blended

LAKE OF THE WOODS MILLING COMPANY, LIMITED, MONTREAL

a change, as he feared the trouble was chronic appendicitis; so the entire establishment has arrived to stay until the Newport season, and the boy's every movement is watched, weighed, and discussed.

The nurse, having tucked him up in a big chair in the sun on the porch, with the boys for company, and in charge of father, who was looking at him with a pitying and critical medical eye, said she would leave him for half an hour while she went up the lane to see Martha Corkle. A few moments after, as I glanced across the road, I saw my boys burrowing away at their dirt bank, and their guest with them. I flew downstairs to call him in, fearing for the consequences, but father, who was watching the proceedings from the porch, laid a detaining hand upon me, saying: "His mother has consulted me about the child, and really sent him down here that I may look him over, and I am doing it, in my own fashion. I've no idea the trouble is appendicitis, though it might be driven that way. I read it as a plain case of suppressed boyhood.

"He doesn't know how to play, or run naturally without falling; he's afraid to sit down in the dirt—no wonder with those starched linen clothes; and he keeps looking about for the nurse, first over one shoulder and then over the other, like a hunted thing. Evidently they have weighed his food, measured his exercise, and bought his amusements; his only free will and vent is to get in a temper. They give him no chance to sweat off his irritation, only to fume; while that shaking, snorting teakettle of an automobile they bowl him about in, puts the final touch to his nervousness."

Then I sat down by father and watched the three boys together, while Richard was preventing his guest from pounding a toad with a stone because it preferred to hop away instead of being made into a dirt pie, and I saw the truth of what

he said. The seven-year-old child who went to riding school, dancing school, and a military drill, did not know how to express his emotions in play, and frozen snowballs and other cruelty was his distorted idea of amusement. ...Poor rich boy, sad little only son, he was not allowed the freedom to respond to the voice of nature even as the tenement children that dance in the streets to the hand-organs or stir the mud in the gutter with their bare toes. It is not the tenement children of New York who are to be pitied; it is those that are being fitted to keep the place, in the unglamorous and frail crafts of the Whirlpool, stable and farm, either striving to seize or struggling to reserve for them.

At the end of half an hour the boys came back to the porch, all three dejected and completely dirty, and clamoring that they were hungry. The English tyrant not appearing, I took them into the house and, after a washing of hands and faces, gave the boys the usual eleven o'clock lunch of milk and simple cookies to take out in the sun to eat. As they were thus engaged the tyrant appeared on the horizon, horror written in every feature, and a volley of correction evidently taking shape on her lips, while an ugly look of cowed defiance spread itself over the child's face as he caught sight of her.

There was no scene, however. Father said in the most offhand way, as if he obeyed was a matter of course, "Go back and tell your mistress that I am carrying out her request, and that after luncheon I will send the boy safely home, with a written message."

"But his medicines, his hour's rest alone in the dark, his special food,—the medical man in New York said—" protested the woman, completely taken back.

"You heard my message?" said father, cheerfully, and that was all.

"What are you going to advise?" I asked, as in the middle of the afternoon

father came from his office, where he had given the lad a thorough inspection.

"Simply to turn him loose in light woollen clothes, give him companions of his age, and let him alone."

"Can't you word it differently?" I asked.

"Why, is not that fairly direct?" he replied, looking surprised; "and surely the direct method is almost always the best."

"I think this is one case where it is not, dead old Daddy. In fact, if you are destined, as I see that you are, to pick up and tie the threads of ravelled health in the Bluff Colony, you will have to become more complicated, at least in speech, accustomed as they are to a series of specialists, and having importance attached to the very key in which a sneeze is pitched.

"Those few words would savor to the Whirlpoolers of lack of proper respect and consideration. You must give a name to both ailment and cure if you expect to be obeyed. Call the case a 'serious one of physical suppression,' to be taken only in light woollen clothes, every other day, and you gain the boy his liberty."

Father laughed heartily, and his nose twitched in a curious way it has when he is secretly amused and convinced against his will; but I think he took my advice, at least in part, for the next morning Papa Vanderveer drove down in the brake, announcing in a shout that "De Peyster slept all night without waking up and crying, for the first time in months," adding, "And Dr. Russell, if you've got anything further in this liberty line to suggest even to getting rid of the Duchess, now's your time. 'The Duchess?' Ah, she is that confounded head nurse woman that Maria will keep so that things may be done properly, until the poor kid's nearly been done for, I say. The Ponsobys are crazy to get the woman to break in

their youngest girl and keep her down and from growing up until they marry the others off; so Maria could part with her in the light of a favor to them, don't you see, without spilling blood. Peysey'll have to have some sort of a chaser, though, or Maria'll not hear of it."

Mr. Vanderveer glowed all over with delight when father condemned the automobile as a nerve racker, and suggested that a young man of the companionsable tutor order, who could either play games, fish, and drive with the boy and his chums, or at times leave him wholly alone, according to need, would be a good substitute for a woman who viewed life as a school of don'ts, and had either wholly outlived her youth, or also had most unpleasant recollections of it.

"I've got my innings at last," he said. "You're the first doctor I've had who hasn't sided with Maria and shut me out until pay day."

"I wonder why spring is such a restless season," I said half to myself and half to father, as I sat on the porch half an hour later, trying to focus my mind on writing to Lavinia Dorman, while father, lounging on the steps opposite, was busy reading his mail.

"One would think we might be content merely to throw off winter and look and enjoy, but no, every one is restless,—birds, fourfoots, and humans. Lavinia Dorman writes that Sylvia Latham has just started for California to see her brother, and she expects to bring her father back with her. The boys disappeared mysteriously in the direction of Martha Corkle's immediately after breakfast, Evan went reluctantly to the train, declaring that it seemed impossible to sit long enough to reach the city, you are twisting about and shuffling your feet, looking far oftener at the river woods than at your letters, and as for myself, it seems as if I must go over yonder and seize Bartel's spade and show him how to dig those seed beds more

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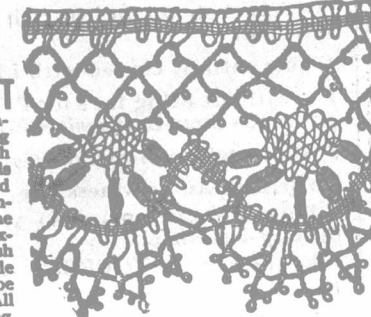
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rapidly, so that I can begin to plant and kneel down and get close to the ground. Yesterday when the boys came in with very earthy faces, and I questioned them, I found that they had stuck their precious noses in their mud pies, essaying to play mole and burrow literally."

"It is the same mystery as the sweating of the corn," replied father, gathering his letters in a heap and tossing them into a chair with a gesture of impatience; "none of us may escape, even though we do not understand it."

"It was years ago that I first heard the legend from an old farmer of the corn belt, who, longing for a sight of salt water, had drifted eastward into one of the little hill farms beyond the charcoal camp. He had been bedridden nearly all winter, but uncomplainingly, his wife and daughter-in-law caring for him, and it was not until the early part of May, when all the world was growing green, that he began to mend and at the same time groan at his confinement."

"I tried to cheer him up, telling him that the worst was over, and that he soon would be about again, and he replied: "Tain't me that's doin' of it, Doctor; hit's the sweatin' of the corn. You know everywhere in May folks be plantin' corn, the time bein' the sign that frost is over and done with." I nedded assent, and he continued: "Now naterally there's lots of corn in ear and shelled and ground to meal that isn't planted, and along as when the kernels in the ground begins to heave and sweat, and if it isn't handled careful-like, and taken in the air and cooled, it'll take on all sorts of moulds and musts, and like as not turn useless. I hold it's just the same with folks,—when springtime comes they fetch up restless and need the air and turning out to sweeten in the sun until they settle down again, else their natures turn sour, pisen'us, and unwholesome, breedin' worms like sweated corn!"

"Since then I've heard it here and there in other words, but always the same motive, the old miller holding it all fact and no legend at all, saying that if he can keep his surplus corn from sweating and well aired through May and June, he never fears for it in the damper, more potent August heat. One thing is certain, that in my practice in countryside, village and town, if strange doings break out and restless discontentment arises, it is never in winter, when I should expect partial torpidity to breed unrest, but in the pushing season of renewal, and, as the old man terms it, "corn sweating."

A little later I was going toward the garden when father called after me to say that he was soon starting for a long trip, quite up to Pine Ridge, and that if I cared to go, taking a lunch for both, it might give me a chance to "turn and sweeten" in the sun and cure my restlessness with natural motion.

Go? Of course my heart leaped at the very thought, because, in spite of the boys, those long drives with father have grown more precious as they grow more rare. But where were the twins? They had disappeared under my very eyes; of a surety they must be at Martha's, but my conscience smote me when, on glancing at the clock, I saw that it was two hours since they left the breakfast table in their brand-new sailor suits, with the intention of showing them to her.

(To be continued.)

Trade Topic.

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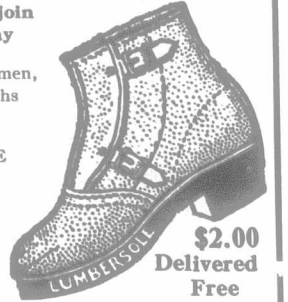
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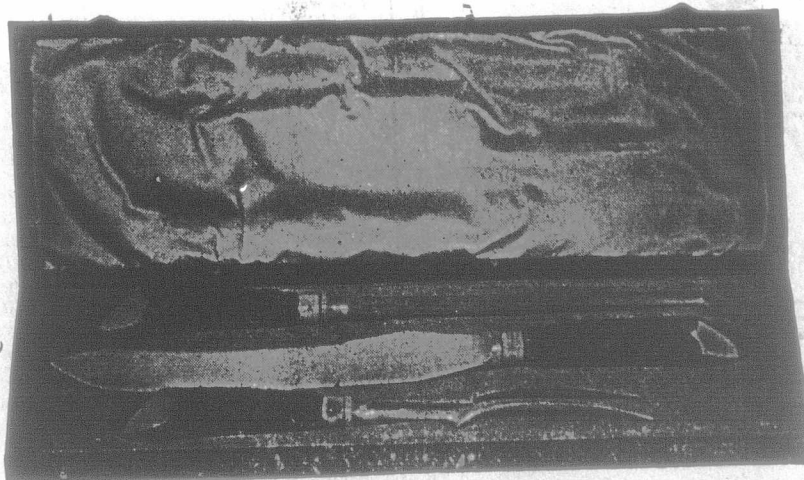
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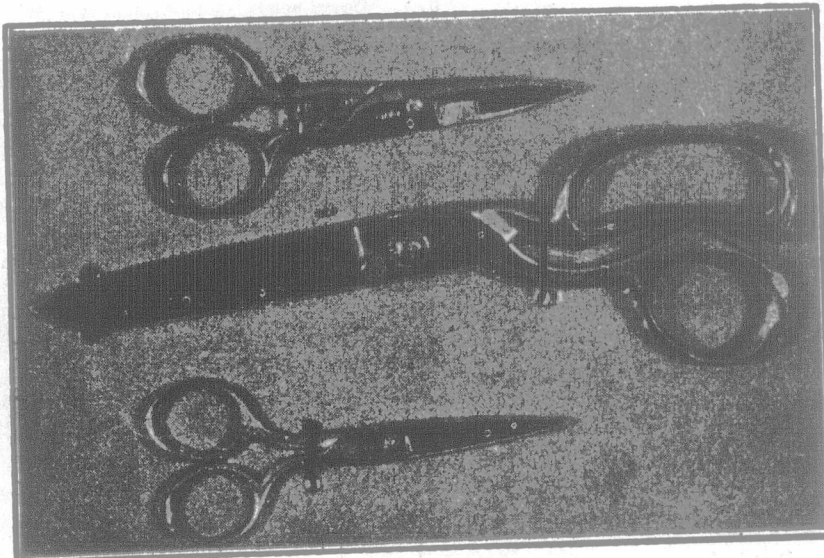
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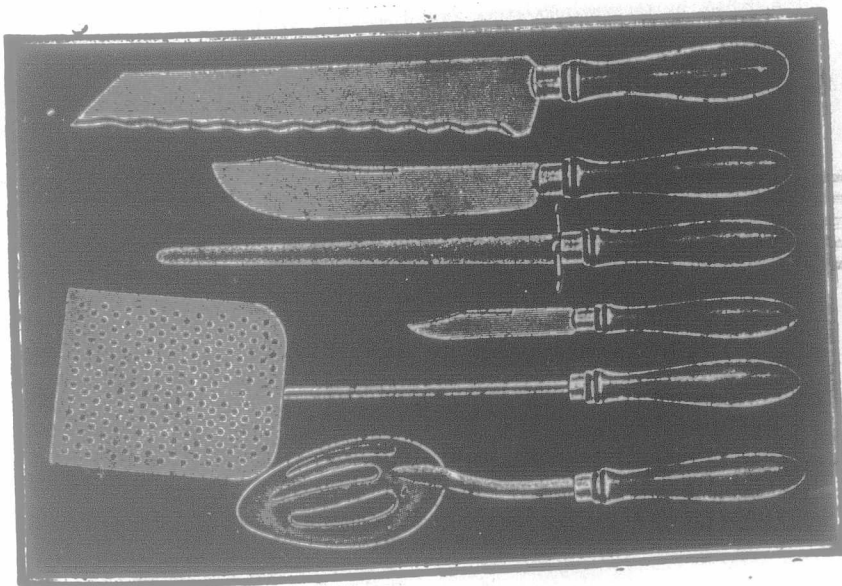
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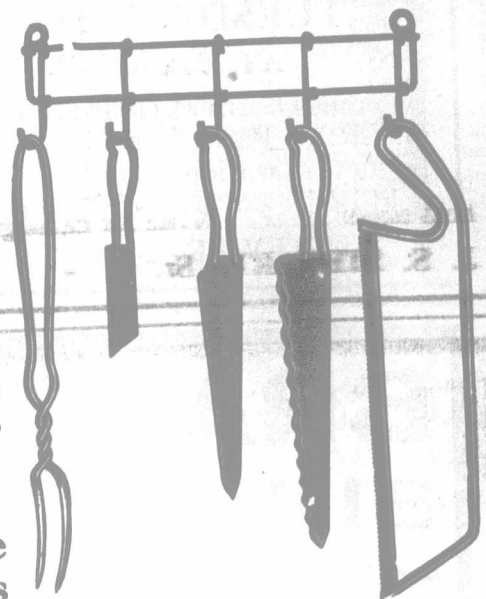
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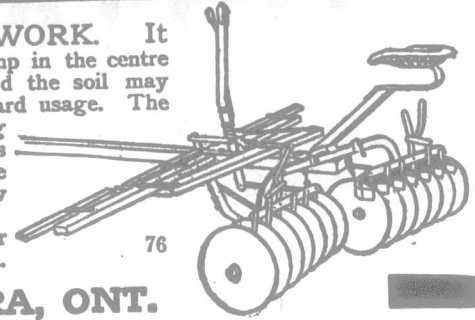
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Gossip.

The four Clydesdales owned by R. B. Pinkerton, and illustrated in the November 13th number, are all the get of one sire, Kier Democrat.

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Gossip.

Geo. A. Brodie, of Newmarket, has lately sold to George Henderson, of Tara, Ont., the big, flashy three-year-old bay stallion, Royal Knight, a grandson of the renowned Sir Hugo, being sired by Sir Jeffrey, and dam, by the popular breeding horse, Superb. This is one of Mr. Brodie's late importations, and one of the few outstanding toppers imported this year. He has plenty of size, superb quality, and the finish not often seen. He will surely be a boon for the Clydesdale breeders around Tara. To the same buyer went a nice horse foal, imported in dam, by Golden Dollar, and to Samuel M. Gerrigle, of Tatchurst, Que., went an exceptionally choice two-year-old filly, by the Royal champion, The Right Honorable. This filly was selected in Montreal as she was landed from the boat.

At a dispersion sale, on November 15th, of the Good Hold Farm herd of Jersey cattle, at Mentor, Ohio, under adverse weather conditions, 141 head are reported as sold in five hours for an average of \$220.17. The top price realized was \$1,000, for the cow, Raleigh's Leda. Two other cows made \$975 and \$875, and nine others from \$400 to \$530. The bulls proved the only disappointment of the sale, the highest price being \$110, for Raleigh's Raleigh. The grand eleven-year-old matron, Eminent's Lady Sultan, the dam of Sultan's Raleigh, who has been shown with such great success by B. H. Bull & Son, of Brampton, Ont., winning grand championship honors this year at the Canadian National and other prominent shows, was considered a bargain, at \$300.

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The Farmers' Institute, The Country Woman, Boy and Girl.

[The following is from an address delivered by W. J. Kennedy, Director of Agricultural Extension, Iowa State College, at the American Association of Farmers' Institutes Convention recently held in Washington, D.C., while it may apply more particularly to U. S. conditions, there is something in it for us. Prof. Kennedy suggests some remedies which are worthy of thought.]

Farmers' institute work, in its various forms, has been of untold value to the American farmer. Through this agency a great stimulus has been given to crop and live-stock production. New and very helpful methods have been introduced. A great deal of attention has been given to the importance of using all the modern conveniences, such as improved machinery and convenient barns and stables. Advantage has been taken of every new device which would tend to the comfort of the animal or to lessen the labor of the attendant in charge.

In too many instances, however, the animals have been given priority over the country woman, the country boy, and the country girl. This is not as it should be. The time is now at hand when the farm woman, the farm boy, and the farm girl, must be given a square deal. We will never make much progress in solving the problem of why the boys and girls leave the farm until we eliminate the chief causes for their dissatisfaction for farm life. In my judgment, more than ninety per cent. of the boys and girls who leave the farm

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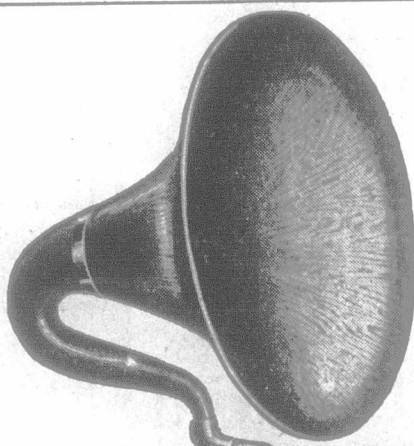
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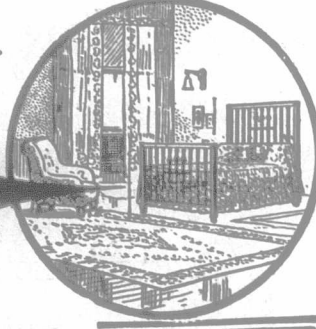
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and go to the towns and cities, do so because of the drudgery and seclusion which their mothers have been compelled to endure.

During my entire life I have been very closely identified with farm conditions. I have seen all sides of the same, thus, I feel fairly well qualified to suggest some of the fundamental reasons as to why the country woman, the country boy, and the country girl, becomes dissatisfied with farm life. They are as follows:

1. The great amount of work which is drudgery, due to the absence of labor-saving devices in the homes.
2. The lack of social privileges.
3. Inadequate and misdirected educational facilities.
4. The decadent condition of our country churches.
5. Impassable condition of our country roads at certain seasons of the year.

Where such conditions prevail, and I am sorry to have to say that they are far too common, you cannot blame the women and the children for wishing to leave the farm and move to the town or city.

One of the greatest problems before our American people for solution to-day is the making of country life more liveable and fascinating. In 1800, almost ninety per cent. of our people lived on the farms, and but some ten per cent. in the towns and cities. To-day, almost two-thirds of our people live in the cities and towns, and but barely one-third on the farms. Since 1900, our cities and towns have gained three persons for every one gained by the rural districts. At the present time we have too few producers of food products in proportion to the number of non-producers or consumers. In the years gone by, the great problem was to find a foreign market for our food products. To-day, things have reversed, and the real problem is to find enough of the products to feed our own people. Unless present-day conditions are radically changed, and that in the very near future, the problem of feeding our American people will be a most serious matter.

What part is the Farmers' Institute going to take in the solving of this problem? This is a matter worthy of our most careful consideration. In some States the farmers' institutes and agricultural extension work are making real progress in this direction. It is a case where we must cast aside past notions and policies and meet the issue squarely. The country woman, the country boy, and the country girl, are worthy of the very best that the Institute system affords. It will mean a new work, a broader and more permanent Institute system. These problems cannot be solved in a two- or three-day session each year. They demand a permanent organization, some well-defined line of activity for almost every day in the year.

The successful Farmers' Institute of the future will be in the hands of men and women who are organizers in the fullest meaning of the word. Information will be imparted through the use of illustrated lectures, exhibits, and demonstrations of an educational and practical nature. Co-operation in all phases of the work, and between the people in the various communities, will be necessary. The day of the farmer and his family living unto themselves and solving their own problems, is fast disappearing, and must give way to community life where all will share each other's burdens to a great extent.

Institute workers must so arrange and present their work that a stimulus for better and more civilized ideas of farm life will result from the same. In considering the problems of the farm home, illustrated lectures, exhibits of household necessities and convenient devices and practical demonstrations on the how and why of the following things should be presented:

1. Labor-saving devices in the kitchen.
2. The use of mechanical power for washing, ironing, churning, and sweeping.
3. The installation of a modern water and sewage system.
4. The installation of a modern heating and lighting system.
5. The presentation of carefully-worked-out plans for a comfortable and practicable farm home.
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7. Helpful hints on the planning and adorning of the farm lawn.

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Any system of rural organization fails in its purpose when it does not consider the vital necessity of human companionship for the families in the rural homes. This is a phase of country life which has been very greatly neglected. It should be the Institute workers' aim to overcome this negligence by creating an ambition and incentive toward a more ideal condition. This may be accomplished by the presentation of plans and outlines which will stimulate a desire on the part of the people to introduce some of the following activities:

- 1. Provision for a social center at schoolhouse or community hall. 2. The formation of local literary societies, singing schools, spelling matches, and home-talent plays. 3. Baseball, football, lawn tennis, and basketball for the boys and girls. 4. Provision for a graphophone with good records in the schools and the homes. 5. Urge the importance of good pictures in the schools and homes. 6. Encouragement of birthday parties and seasonal parties, especially for the younger children.

Efficiency is the modern watchword in all lines of work. To insure the highest degree of efficiency, we must have highly skilled experts. This demands special training in our educational system. In many of our rural districts, it will mean a re-organization of our school work. Our farm boys and girls are worthy of a school training which is outlined and taught in such a way as to thoroughly dignify the two greatest of our industries, agriculture and home-making.

The Farmers' Institute should demand better schools for the boys and girls, and should furnish suggestive ways and means for improving the mind and the intellect, and developing the initiative of our rural people. A great deal may be accomplished in this direction by inaugurating the following lines of work:

- 1. A re-organization of our school system to meet the needs of the farm boy and the farm girl. 2. Township and travelling libraries. 3. Lecture courses and study clubs. 4. Boys' and girls' club work along agriculture and home-making lines. 5. Domestic science and domestic art shows. 6. Corn and grain shows, colt shows, poultry shows, and fruit and vegetable shows. 7. Cooking and sewing contests for girls. 8. Corn, grain, live stock, poultry, fruit and vegetable judging contests for boys. 9. Essay writing and spelling contests for boys and girls. 10. Corn, grain, fruit, poultry, and live-stock growing competitions for boys and girls.

It is claimed that in many sections of our country more than one-half of our rural people have no affiliation with a church. This is a truly lamentable condition of affairs. The boy and girl who have never enjoyed the association of a good Sunday-school have been deprived of an influence and early training which counts for much in their later life.

This offers another fertile field for the Institute worker. The church building should afford an excellent center for our Institute meetings. The churches should be used and worn out, and not allowed to rot out. The following are some of the things most urgently needed in the rejuvenation of our rural church work:

- 1. A useful church building so planned and located that it may also serve as the community social center. 2. The employment of a minister who knows rural conditions, and who is in full sympathy with and loves to do rural church work. 3. Community, township and county Y. M. C. A. and Y. W. C. A. organizations with county secretaries.

I wish to direct your attention to the fifth, but by no means the least important reason for the dissatisfactions of our country women and children for farm life, - that is the road problem. Without fairly good roads at all seasons of the year, it is next to impossible to remedy our present-day troubles in reference to the social, educational, and church problems of our rural people. The use of the automobile has already accomplished wonders for our farm people. With a better system of country roads, its use can be greatly enlarged. Every Farmers' Institute organization should get back of a sensible road plan, because in this day and age of invention, the distance between the farm home and the town, rural church, school, community center, or the other farm homes of the neighborhood, is measured not by miles, but by the condition of the roads.

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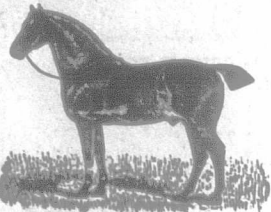
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For the cure of Spavins, Ringbone, Curbs, Splints, Windgalls, Capped Hocks, Strains or Bruises, Thick Neck from Distemper, Ringworm on cattle, and to remove all unnatural enlargements. This preparation, unlike others, acts by absorption rather than blister. This is the only preparation in the world guaranteed to kill a Ringbone or any Spavin, or money refunded, and will not kill the hair. Manufactured by Dr. Frederick A. Page & Son, 7 and 9 Yorkshire Road, London, E. C. Mailed to any address upon receipt of price, \$1.00.

Canadian Agents:
J. A. JOHNSTON & CO., Druggists
171 King Street E. Toronto, Ont.



\$1.00 for a Horse
Save a horse and you won't have to buy one. Don't sell or destroy any horse on account of Spavin, Splint, Ringbone, Curb, Sprains or Lameness. Spend one dollar for a bottle.

KENDALL'S SPAVIN CURE

has saved a great many horses—has put them back to work, even after they have been given up. Over 35 years of success have proved its value.

Mr. J. M. Groudin of St. Lin, Que., writes: "I have been using your Spavin Cure for many years, always with excellent results."

Get Kendall's Spavin Cure at any drug store. Price, \$1.00 per bottle, 6 bottles for \$5.00. "A Treatise on the Horse" free at druggists or from

Dr. B. J. Kendall Co.,
Essexburg Falls, Vermont, U.S.A.



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. P.S.—Nogent is in the heart of the Perche horse district.

Horse and Cattle Insurance
Against Death by Accident or Disease
Specialties of Stallions, In-foal Mares, Track Horses, Transit, etc. Liberal policy issued by a Company operating under Federal Insurance Department's supervision.

WRITE FOR FREE BOOKLET.
The General Animals Insurance Company of Canada
Head Office: 71a St. James Street, Montreal, Que

Please mention "The Farmer's Advocate."

Questions and Answers.
Miscellaneous.

Appointing School Secretary.
Which is the legal way to appoint a secretary for a public school—by the trustees or by the ratepayers?
Ontario. SUBSCRIBER.

Ans.—By the trustees. See section 72 (a) of the Public School Act (Ontario Statutes, 1909, Chap. 89).

Bequest of money.
A makes her will leaving all her money except a few hundred dollars, which she sets aside for her own keep. Now, when she is a very old lady and not responsible to make another will, she finds she has not enough to meet her expenses.

1. Can she use any she has willed away?
2. If she does, will the executors have to make up what is deficient?
Ontario.

Ans.—1. Certainly she can.
2. No.

Absence of Oestrus.
Have a valuable pure-bred cow; was bred in March, 1912, and was apparently in calf. Being in good flesh, it was difficult to tell until December, when it was found she was without calf. Cow has never been in season since being bred. Appears to be in good health. Has had calves before all right. Why does she not come in season? Do you think she will ever breed again?
W. R.

Ans.—This trouble frequently occurs in animals that are not in good condition, but apparently this is not the reason in your case. It is due to an abnormal condition of the ovaries, which may right itself in time. Sometimes, 2 drams nuxvomica administered three times daily in the food, apparently has a good effect by stimulating the nervous system. If you allow her to run with a bull, she may come in season, and breed. The animal may return to normal condition and be a good breeder, but such is not often the case.

Trade Topic.
CARCASS COMPETITION AT THE WINTER FAIR.

Arrangements are being made to make the carcass competition more attractive and of greater educational value than ever before. After the hogs have been judged alive, they will be placed in pens, and cards indicating the prize awarded placed on each pen. Visitors to the building on Tuesday afternoon and evening will be able to observe closely the most approved type of bacon hog, and on Wednesday evening they will be able to see the resulting carcasses, and thus be enabled to learn many valuable lessons.

Gossip.

LAST CALL FOR THE WOODSTOCK HOLSTEIN SALE.

All the signs of the times point to an unprecedented boom in the dairy business of this country, and to a substantial increase in the value of dairy cattle, and particularly to animals of those breeds that have demonstrated in official Government tests their ability to produce sufficient milk and butter-fat to entitle them to registry in the official records. This is exactly the kind of cattle that Ruby, Leuzler & Bollert are offering by auction at Woodstock, on Wednesday, December 17th, an absolute dispersion of the two herds that have taken many years of judicious and careful breeding to reach their present high standard, but circumstances make it necessary for them to be sold, and Canadian farmers will get the benefit, and to parties looking for Holsteins above the ordinary in merit and ability to produce the goods, we unhesitatingly say, attend this sale and you will not be disappointed. Owing to the large number to be sold, the sale will commence at 10 a.m., and at noon will adjourn for lunch.

Mistress.—Well, I'm sorry you want to leave me, Mary. But what's your reason?
(Mary keeps silent.)
Mistress.—Something private?
Mary (suddenly).—No, mum, please mum, he's a lance corporal.



The very thing!
A KODAK

The Christmas gift that will appeal to every member of the family—will add to the joy of the Christmas day in the pleasure of picture taking, and will perpetuate that day by preserving its memories.

KODAKS, \$7.00 and up.
BROWNIE CAMERAS (like Kodaks), \$1.00 to \$12.00.
Catalogue free at your dealer's or by mail.

CANADIAN KODAK CO., LIMITED, TORONTO

Canada's Champion Herefords When selecting a herd head or foundation stock come to the fountain head; for years my herd have proven their title as the champion herd of Canada. I have always both sexes for sale.

L. O. CLIFFORD Oshawa, Ontario

THE AULD HERD AND PLEASANT VALLEY SHORTHORNS

We have females of all ages and of the best Scotch families for sale. Those interested should come and see us. Correspondence invited.

A. F. & G. AULD Eden Mills, Ont. Bell 'phone. Guelph or Rockwood Stns.

SHORTHORN BULLS FOR SALE

8 head from 10 to 18 months, bred from cows which are from Imported dams and sired by choicely bred bulls, prices are not high as I need the space for stabling cattle.

Shropshire and Cotswold ewes bred to Imported rams.

BLAIRGOWRIE FARM JOHN MILLER, Jr. ASHBURN, ONT.

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.

DAIRY-BRED SHORTHORNS

We have for sale, Scotch- and English-bred Shorthorns. A few bulls of improved breeding on big milking lines; also other pure Scotch and heifers of both breed lines

L.-D. 'Phone G. E. MORDEN & SON, OAKVILLE, ONTARIO.

SHORTHORNS of breeding, style and quality. If in want of an extra choice herd header, carrying the best blood of the breed, or a limited number of right nice yearling heifers, write us; we can supply show material of either bulls or females.

Geo. Gier & Son, Waldemar R.R. No. 1, Ont. L. D. Phone

MEADOW LAWN SHORTHORNS OF RICHEST AND MOST FASHIONABLE SCOTCH BREEDING, and of high-class type and condition. I can supply young bulls and heifers—Clareta, Rosan Ladys, Mildreds, Stamfords, etc. L.-D.-Phone

F. W. EWING, R. R. No. 1, ELORA, ONTARIO.

HOLSTEINS—I can supply a limited number of high-producing and highly-bred bulls, bred on both sides from high official backing. Let me know your wants.

W. E. THOMPSON, R. R. No. 7, Woodstock, Ont. L.-D. 'Phone

Please Mention the Advocate

**Davies Fertilizers
ARE
Money Seeds**

"As you sow them—so shall you reap."

WRITE:
The William Davies Co., Ltd.
WEST TORONTO, ONT.



MAIL CONTRACT

SEALED TENDERS addressed to the Postmaster General, will be received at Ottawa until noon, on Friday, the 28th day of December, 1913, for the conveyance of His Majesty's mails on a proposed contract for four years, six times per week over Strathroy (Napier) Rural Route No. 3, from the Postmaster General's Pleasure, next.

Printed notices containing further information as to conditions of proposed contract may be seen and blank forms of tender may be obtained at the Post Offices of Strathroy, Napier and Cairngorm, and at the Office of the Post Office Inspector at London.

Post Office-Department, } G. C. ANDERSON,
Mail Service Branch } Superintendent.
Ottawa, November 14th, 1913.

Notice to Importers

G. 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. 30 years experience. Best reference. Correspondence solicited.

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.

Shorthorns, Cotswolds, Berkshires

In Shorthorns am offering cows and heifers and calves of either sex. In Cotswolds have ram and ewe lambs and breeding ewes for sale. In Berkshires have a nice lot ready to ship.

CHAS. E. BONNYCASTLE,
P. O. and Station, Campbellford, Ontario.

Shorthorns

Fourteen good young bulls, from 6 to 12 months old, and a number of females. Would appreciate your enquiry for same

H. CARGILL & SON, Cargill, Ontario

OAKLAND 45 SHORTHORNS

25 breeding females of milking strain headed by Scotch Grey 72892, a first prize and sweepstake roan bull; and Red Baron 81845, a fine large dark red bull of excellent dairy strain. Both for sale. Also a pair of grand young bulls 10 and 14 months, of excellent milking strain, youngest if properly placed will head a herd.

JNO. ELDER & SONS, HENS ALL, ONT.

1854 MAPLE LODGE STOCK FARM 1913

Shorthorns and Leicesters

I have a most excellent lot of young rams for sale, mostly sired by imported Connaught Royal. Something very choice in young bulls. House one mile from Lucan Crossing, G. T. Ry.

A. W. SMITH, MAPLE LODGE, ONTARIO

Spring Valley Shorthorns

A few of the best young bull prospects we ever had. They will please you. Will sell females too. Visit the herd; we think we can suit you. Particulars on application.

KYLE BROS., R. R. No. 1, Drumbo, Ont.

WOODHOLME SHORTHORNS

I have for sale a most attractive offering in young bulls and young females, pure Scotch, breeding unsurpassed, the low thick kind. Write me your wants. G. M. FORSYTH North Claremont, Ont.

SHORTHORNS FOR SALE

Three yearling bulls, four big, thick heifers and young cows of choicest breeding, due to freshen soon; all at prices that will surprise you.

Stewart M. Graham, Lindsay, Ont.

Spruce Lodge Shorthorns & Leicesters.

Present offering: A number of good heifer and young cows, with calf at foot, from good milking families. A few ram lambs and a choice lot of shearing ewes, now bred to imp. ram. W. A. Douglas, R.R. No. 2, Caledonia, Ont.

Please mention "The Advocate."

Questions and Answers.
Miscellaneous.

Castration of young Stock.

1. How soon after birth should a calf or pig be castrated?
2. Would you advise selling oats to buy oil cake to feed horses or other young stock?

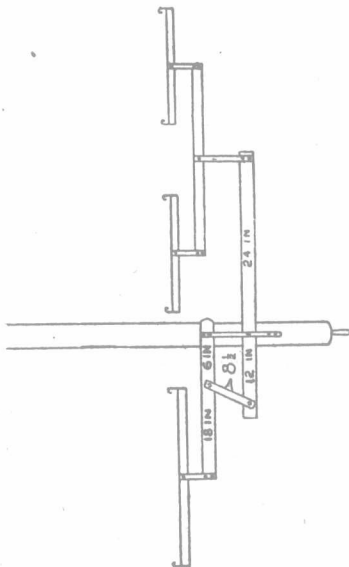
W. W. S.

Ans.—1. Young pigs should be castrated while sucking the mother, at an age of four to six weeks, but this will be impossible with the calf. About three months of age is a most satisfactory time for them.

2. Not ordinarily. You can not get what oats are worth. Keep the oats and buy a bag of oil-cake meal occasionally. Only a small quantity is required to show in the coat of the young stock.

Three-horse Evener.

Some time ago there was a question asked and answered in "The Farmer's Advocate" re plowing with three horses, and although we have searched high and low we can't find that number. (I have the number with the four-horse arrangement.) Would it be asking too much to



have that answered again in your next issue. I would consider it a great favor.

YOUNG FARMER.

Ans.—We publish again our illustration of a three-horse evener. We have others, but perhaps this will meet your purpose.

Diarrhea in Pigs.

I have eight little pigs; they will be three months old on the 17th of December. They were weaned at eight weeks. At first I scalded barley chop, and put a little food in it, also milk, and adding a little buttermilk. They took diarrhea. I then started to feed rolled-oat chop dry, and skim milk about half an hour afterwards, and cold water, but they do not seem to get much better. Now, I feed a gallon of oat chop three times a day. Is that too much? Is oat chop good for little pigs? Will barley chop, with a great many awns on, be good for them? Will you please tell me a good ration for little pigs?

A SUBSCRIBER.

Ans.—Several conditions may combine to cause this trouble with the young pigs. Colds, trouble with their teeth, or inability to properly digest their food, will lead to diarrhea. House them in clean, dry pens, with lots of litter, but allow them to run out where they may have access to the ground. Ground oats with hulls removed is excellent food for the young pigs, but the hulls, in any quantity, are indigestible. If you wish to feed oats, sift out the hulls and feed with milk as you have been doing. Middlings, with low-grade wheat flour, commonly known as feed flour, is excellent for growing pigs. Any grains with thick hulls or numerous awns, are not suitable for young pigs. An exact quantity of grain could not be stated. The feeder must judge, and keep the young ones anxious for their meals. Well-boiled flour gruel mixed with milk may allay the trouble. Fifteen to twenty drops of turpentine for each one, three times a day, mixed with their milk, will give results, and be easily administered. Besides this, give a teaspoonful of tincture of ginger and gentian, combined, to each one, three times daily in a little water.

Just Make This Test

SUPPOSE you select a rundown horse, cow, sheep or hog and try the effect of Pratts Animal Regulator. It will not cost you a cent to make the experiment, because we have authorized your dealer to refund your money instantly if it fails. If it puts the animal on its feet, causes it to put on flesh, and places it in prime condition, you will consider the money well spent.

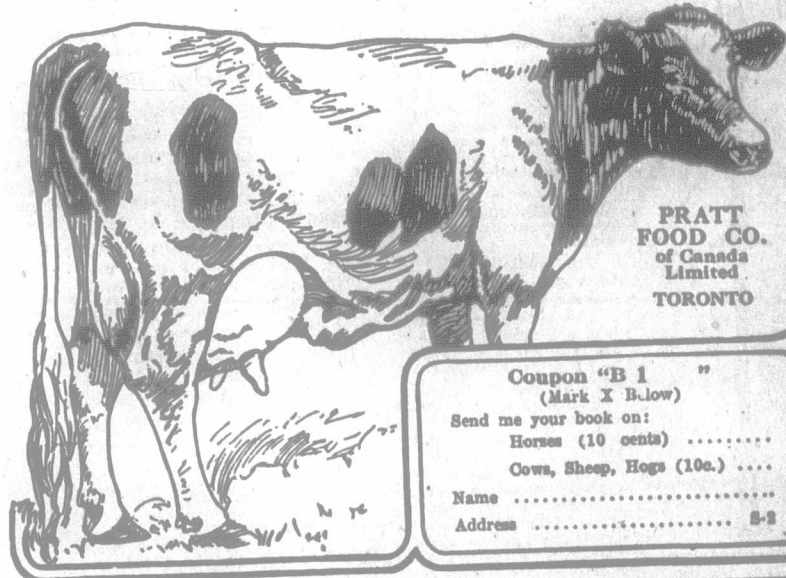
Pratts Animal Regulator

is the original stock regulator of America, and for 42 years has been recognized as the most reliable and effectual regulator and tonic for all domestic animals. It is composed of pure medicinal roots, herbs and barks, so blended as to act gently but surely upon the blood, bowels, liver and digestive organs, ensuring perfect digestion and causing the animal to draw more nourishment from a reduced amount of feed.

"Your Money Back if It Fails."

At your dealer's, \$3.50 per 25-lb. pail; also in packages at 25c., 50c. and \$1.00.

Send 10c. to cover postage, wrapping, etc., and we will mail you Pratts "Pointers on Cows, Hogs and Sheep"—172 pages—or "Pointers on Horses"—183 pages—both books for 20c. Use the Coupon.



PRATTS

Preparations for Horses, Cows, Hogs and Sheep

Pratts Healing Ointment (for Man or Beast), 25c.-50c.

Pratts Worm Powder, 50c.

Pratts Veterinary Colic Cure, 50c.-1.00

Pratts Liniment (For Man or Beast), 25c.-50c.-\$1.00.

Pratts Distemper and Pink Eye Cure, 50c.

Pratts Animal Regulator, 25c. to \$3.50.

Pratts Dip and Disinfectant, \$1.50 gal.

Pratts Healing Powder, 25c.-50c.

Pratts Heave, Cough and Cold Cure, 50c.-\$1.00.

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PRATT FOOD CO.
of Canada Limited
TORONTO

Coupon "B 1"

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Send me your book on:

Horses (10 cents)

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Name

Address

SHIP YOUR

RAW FURS

TO THE LARGEST, MOST RELIABLE AND OLDEST HOUSE IN CANADA

We Pay Express and Postage Charges. Prompt Returns.

E. T. Carter & Co., 84 Front St., E., Toronto

100 SHORTHORNS 100
IN OUR HERD

For sale—Imported yearling show bull; 14 bull calves 8 to 14 months old; cows and heifers and show material all ages. Herd headed by three high class imported bulls, all three were prize-winners at Toronto this year.

MITCHELL BROS., BURLINGTON, ONTARIO
Farm 1/2 mile from Burlington Junction.

Shorthorns and Clydesdales

Shorthorn offering for October and November include 7 good young bulls from 9 to 15 month old. A catalogue of our Clydesdales will be mailed on application. W.G.Pettit & Sons, Freeman, Ont. Bell phone Burlington Jct. Sta., G.T.R.

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 quality. **HARRY SMITH, HAY P. O. ONT.** Exeter Station. Long-distance Telephone.

Irvine Side Shorthorns

We are offering just now some very choice Scotch-bred heifers, high-class in type and quality, bred in the purple; also one right nice yearling roan bull.

JOHN WATT & SON, Salem, Ont. L.-D. phone.

SHORTHORNS

Our present offering consists of Nonpareil Lord =87184= Dam Imp Dalmeny Nonpareil 6th. 7 young bulls from 6 to 12 months old. 15 cows and heifers of choicest quality and breeding.

A. J. HOWDEN & CO., COLUMBUS, ONTARIO. Long-distance phone Myrtle, C. P. R. and G. T. R.

Shorthorns—I have ten young Shorthorn bulls, some fit for service now. Part of them are bred, and made so they are fit to head the best herds in any country, some of them are of the thick, straight, good feeding kind, that will produce money-making cattle; some of them are bred from the best-milking Shorthorns, and the prices of all are moderate. I have Shropshire and Cotswold rams and ewes of all valuable ages. Write for what you want. I can suit you in quality and in price. Ask for bull catalogue.

ROBERT MILLER, Stouffville, Ontario

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, illustrated and illustrated.

FLAMING BROS., Chesham, 75 Church Street, Toronto, Ont.

Aylmer Superior Level Force Pump

For Hand and Windmill use. Has Six, Eight, and Ten-inch Stroke. Adjustable Base.

Fig. 36.



Fig. 36 represents our Superior Level Pump, fitted for hand and windmill use. Made in 1½ and 3-inch.

This style of lever and fulcrum has several advantages over the ordinary style; having longer stroke, the power is greater, making it work easier. The handle being wood, they are not liable to break in frosty weather.

The base is adjustable, admitting of top being raised or lowered to any position desired.

The handle is drilled for three lengths of stroke. Six, eight, and ten-inch stroke.

This is readily converted into a Windmill Pump by the addition of a flat bar, which screws into the cross-head on top.

Cylinders capped inside require to be two inches longer to obtain same stroke.

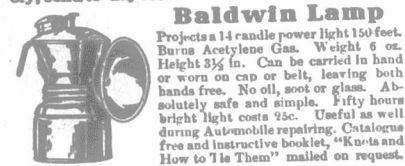
This pump is adapted for all depths of wells; furnished with Iron, Brass Body or Brass Lined Cylinder. You'll never regret placing

one of these pumps on your farm. Write us to-day for prices and illustrated catalogue free.

Aylmer Pump & Scale Co.
Aylmer - Ontario

HUNTERS -- TRAPPERS

If you want an ideal lamp for night fishing, trapping, hunting or for work about farm or machinery, send to-day for a



At all dealers or by **JOHN SIMMONS CO.** mail prepaid - \$1.00 137 Leonard St. New York City

RICE'S SALT

Is made by a clean and pure process. Composed of perfect crystals.

ASK FOR IT.

North American Chemical Co., Ltd
Clinton, Ontario

Cows Wanted

Give best prices on fifty head milking Shorthorns and fifty head Holsteins, average age six years, tuberculin tested.

THE DUNROBIN FARMS

Beaverton Ontario

High-class Ayrshires—If you are wanting a richly-bred young bull out of a 50-lbs-a-day and over cow, imported or Canadian-bred dam or sire, write me. Females all ages. Prices are easy.

D. A. MACFARLANE, Kelso, Que.

Dungannon Ayrshires—For high-class Ayrshires, write us or come and see them. We can sell matured cows, heifers, heifer calves, and one richly-bred 6 months old bull calf. Prices right.

L.-D. Phone. **W. H. FURBER, Cobourg, Ont.**

DON JERSEY HERD Offers young bulls and heifers for sale; heifers bred to Eminent Royal Fern. D. DUNCAN, DON, ONTARIO.

Phone L.-D. Agincourt. **Duncan Stn. C. N. R.**

Please mention "The Farmer's Advocate."

Questions and Answers.

Miscellaneous.

Hackney Stallion.

Where can I buy a young Hackney stallion, a good foal-getter, pure-bred, and priced right? J. G. M.

Ans.—Consult our advertising columns.

Feathers on Legs.

Will a pure-bred Barred Plymouth Rock hen have feathers on her legs below the knees? INQUIRER.

Ans.—A pure-bred Barred Rock with feathers on the legs would be disqualified in an exhibition, but a pure-bred bird somewhat of a freak, might have feathers on its legs.

Worms in Colt.

Enclosed you will find worm which came from spring colt. As I have never seen one like it before, would you kindly inform me how to treat colt? W. J. T.

Ans.—The colt had the ordinary type of worms often found in the intestines of horses. Try four drams each sulphate of iron, sulphate of copper, tartar emetic, and calomel. Mix, and make into twelve powders. Give a powder every night and morning. After giving the last one, give him a purgative of half a pint of raw linseed oil. Feed bran only for 24 hours after giving the purgative.

Minor Owing Land—Roads.

1. Can a young man, eighteen years of age, buy and own land in his own name?
2. What is the cost of macadam roads? Are they the cheapest kind of permanent road? If not, what is? A. J.

Ans.—1. Yes; you could take a deed of the land in your own name and become the owner of it. You would not be in a position, legally, to convey or lease it until 21; but you could operate it as proposed in the meantime, and be quite within the law.

2. The ordinary macadam road, near to stone or a railway siding, where it could be delivered, costs upwards of \$4,000 per mile. Other roads farther removed from the materials, and more difficult of construction, may cost up to \$16,000 per mile.

Cement Queries.

1. I intend cementing my cow stable next spring. It is 36 x 71 feet, and I want to lower the floor. Would it be all right to cement on top of the earth, without bricks or stones, and how much cement, etc., would I need?
2. I would like to cement another building, 30 x 16½ feet. How much cement, etc., would I need?
3. My horse stable is 8½ x 30 feet. How many bags of cement, etc., would it take? A. C. P.

Ans.—1. It would be better to make a good gravel bottom. It would require about 30 to 35 barrels of cement and one-half cord of gravel, not counting on gravel to go under the cement.
2. About 7 barrels of cement and 6 yards of gravel.
3. About 12 or 13 barrels of cement and 12 yards of gravel, not counting filler underneath cement.

A BIG LITTER.

A sow, the property of John Semple, Derryduff, Dungiven, had a litter of 24 pigs a few days ago; 22 were alive when farrowed. I believe this is a record, writes R. C. M. Trainor in the Irish Farming World.

Matthew Marshall, of Stranraer, Scotland, the well-known Clydesdale breeder, was an interested spectator of the Clydesdale judging at the recent National Show in Toronto. This is Mr. Marshall's first visit to Canada, and we sincerely hope his impressions of our country, our people, and our stock, may be such that he will be induced to pay us many more visits.

A GOOD SALE OF AYRSHIRES.

At a combination auction sale on Nov. 13, at Worcester, Massachusetts, of Ayrshire cattle, by the estate of the late Robert Hunter, and by other contributors, good prices were received. The highest price reached was \$500, for the three-year-old imported cow, Auchinbrain Buntie 22nd, taken by Delchester Farms, Pennsylvania. Several others sold for prices ranging from \$300 to \$355 each.

Here's what one Farmer says about the LOUDEN Carrier

You can't beat the LOUDEN

"I purchased (after taking knowledge of others) a Louden Litter Carrier and put it up myself. I wish to say, for the benefit of others who may be putting one in, that the Louden gives me perfect satisfaction."

The Louden Carrier kicks barn-drudgery out of the way. You just fill the galvanized box, raise it by a light pull on the chain (a boy can hoist half a ton) then run the load quickly and easily from the bars to the manure heap or shed, where it can be conveniently dumped.

Write to-day for more particulars—get a copy of the Louden Catalogue. Scores of useful, labor saving, money-making devices you ought to know about. We will prepare your barn plans, too, FREE for the asking.



LOUDEN MACHINERY CO. Dept. 31 GUELPH, Ont. 3

WOODEN pails and tubs are as much out of date as the scythe or the sickle—and just as unpractical.

Eddy's Fibreware

gives superior results—for less money. Pails, tubs, dairy utensils, etc., made of this material are light, tight and durable. They have no hoops to drop off—no seams to crack. And they outwear the wooden articles many times over.

Ask Your Dealer

"Just as good as Eddy's Matches"

OIL CAKE

Nothing better for milk cows. They give more milk and better milk when fed

Livingston Brand Oil Cake Meal

It is equally good for fattening steers and putting them in the market in prime condition.

Fine ground, or course ground for cattle. Pea size for sheep. We also sell Linseed Meal and Flax Seed.

If your dealer cannot supply you, write us.

The Dominion Linseed Oil Company Limited
BADEN, ONTARIO MONTREAL, QUEBEC

RAW FURS

If there are any Trappers or Collectors of Raw Furs that do not know us by this time, it is time now to get acquainted with us. Let us send you our price list, or better yet, make us a trial shipment and let us show you what we can do. Write for Price List and Tags Free.

TORONTO 1815
WALKERTON 1895

C. H. ROGERS
Dept. R. Walkerton, Ont.

Direct Exporter
and Manufacturer

Ayrshires and Yorkshires

ALEX. HUME & COMPANY,

Bulls for service, of different ages, females all ages. Calves of both sexes. All bred for production and type. A few pigs of either sex ready to ship. Menie P.O., Ontario

75 Hillcrest Ayrshires

Our Ayrshires are selected and bred for big production, and show-ring quality. Many of the heifers we are offering are grand-daughters of the two Ex-World's Champions, Jean Armour, Rec. 20,174 lbs, and Primrose of Tanglewyld, Rec. 16,195 lbs. F. H. HARRIS, Mount Elgin P. O. & Stn.

City View Herd of Record of Performance AYRSHIRES

One two-year-old, one yearling, one calf, males only, for sale, from R. O. P. cows, and sired by bulls from R. O. P. dams.

JAMES BEGG & SON,

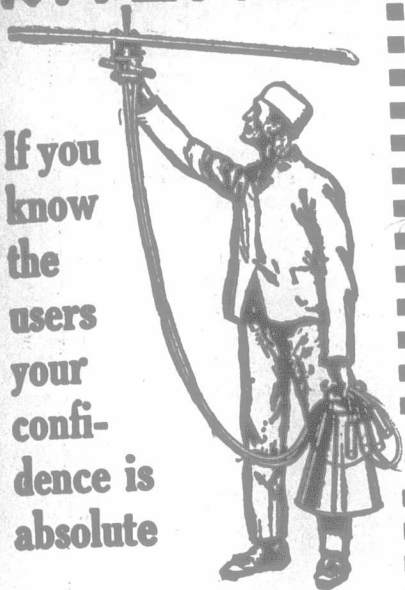
R. R. No. 1, ST. THOMAS, ONT

Brampton Jerseys

We are doing the largest business we ever did, chiefly with our old customers; young bulls and heifers from sires with tested daughters. Several imported cows and bulls for sale. Canada's Greatest Jersey Herd. B.H. Bull & Son, Brampton, Ont.

SHARPLES MILKER

If you know the users your confidence is absolute



America's shrewdest dairy-men use over 6000 Sharples Milkers.

A good example is Hershey, the great chocolate man. He put a Sharples Milker in one of his many dairy barns and tried it out. Then in another barn and another and another, and he now milks twenty-one herds with the Sharples Milker.

Another user is Stephen Francisco, father of certified milk, and the livest wire on sanitary methods in the United States.

A small locality in Southern New York uses over 70 Sharples Milkers—the Province of Ontario milks 2500 cows with the Sharples and many thousands of machines are used throughout the continent.

An average operator milks thirty cows per hour, some milk forty, but we say thirty to be conservative.

It saves money, relieves the help problem, nightmare, and insures more and cleaner milk by making healthier, better cows.

The Milker book is good. Send for it.

The Sharples Separator Co.
West Chester, Pa., U. S. A.
Winnipeg, Canada.
Toronto, Canada.
Agencies Everywhere.

HOLSTEINS FOR SALE

Ten females, all ages, one bull, 3 years old, owned by the David Rife Estate. The above stock have been placed in my hands for sale, and will be sold reasonable to anyone taking the lot. Will not be sold separate. For particulars, apply to

WM. A. RIFE, Hespeler, Ont.
Nine miles south of Guelph.

MOLASSES FEEDS
For Dairy Stock and Horses

Write for FREE samples to
CHISHOLM MILLING COMPANY
TORONTO

Royalton Stock Farm Holsteins
Herd headed by Royalton Korndyke Major, (Imp.) whose dam gave 111.1 lbs milk in one day, 3 months after freshening. We are offering a few young cows (2 years and up) bred to the above bull and due to freshen from now on. One young bull calf 5 months old from above bull. Also four young bulls fit for service, sired by Sir Abbecker Paul De Kol (my former herd bull) and from R. O. P. Cows. E. C. GILBERT, R. R. No. 7 St. Thomas, Ontario

The Maples Holstein Herd
Headed by Prince Aaggie Mechthilde. Present offering: Bull calves and bulls fit for service. Record of Merit dams, with records up to 20 lbs. butter in 7 days. Prices reasonable.

WALBURN RIVERS
Ingersoll, Ont.
R. R. No. 5

Glenwood Stock Farm 2 YEARLING BULLS FOR HOLSTEINS SALE, out of big milking strains; at low figure for quick sale.

THOS. B. CARLAW & SON, WARKWORTH, ONT. Campbellford Station

For Sale—Reg. Holsteins—A few choice young cows, due to calve March and May; also three yearling heifers from officially-tested stock.

W. A. BRYANT, Strathroy, Ont. R.R. No. 3

Questions and Answers. Miscellaneous.

Sanitary Milk Pails.

For some time past I have wanted a couple of sanitary milking pails, or some kind of improvement on the old-fashioned, open-mouthed sort. A Canadian firm advertises one, but on application, answer "do not stock it," and gives an American address. Now, I prefer to deal with Canadian firms, to buy "made-in-Canada" goods, if I can. J. G.

Ans.—Firms manufacturing such pails should advertise in "The Farmer's Advocate."

Interest.

A and B had a dispute. A goes to B's house to settle his account, but B pays no attention to him, and has not sent in his account against A. Can B charge A interest on his account?

Ontario. SUBSCRIBER.

Ans.—Probably not. There does not appear to have been any "account stated" between the parties, any time fixed for payment, and demand for same, any agreement either express or implied, that the account should bear interest, or any notice by B to A that interest would be charged; therefore we think that B is not in a position to recover interest.

Right to Rails.

A's and B's lands adjoin on the concession line, A's land in fifth concession and B's land in fourth concession, B having all the road allowance. Fence was built by the man that A bought the farm from. A has kept the fence in repair for thirty years. A and B divided the fence in 1912. B has taken A's rails away and drew in a lot of large stones. There are some rails there yet. Has B any right to the rails? Can A take them? What steps should A take to secure the rails?

Ontario. SUBSCRIBER.

Ans.—The foregoing statement of facts is insufficient to enable us to answer your questions. We are inclined to think that, as the case is stated, A is entitled to the rails in question; but so much depends upon the terms of the recent division of fence that we cannot venture a definite opinion. A should consult a solicitor personally.

Public School Inspector and Trustees.

Regarding the powers of Public School Inspectors in rural sections:

1. Has a Public School Inspector the power to hire a teacher and place him in a school at a given salary without consulting the Trustees?
2. In such case, who would be responsible for the payment of his salary?
3. Where an Inspector instructs the Trustees to engage an unqualified teacher (by letter), which they do for a few days, has the said Inspector a right to instruct the Treasurer of the Municipality not to pay over any money whatever to the Trustees?

Ontario. SUBSCRIBER.

Ans.—If we were to go upon the statement of case submitted, alone, we should answer your 1st and 3rd questions in the negative; but we really cannot deal satisfactorily with any of the questions without reasonably full information respecting the facts and circumstances of the whole matter. This the statement does not give.

Contagious Abortion.

1. How long does a cow, affected with contagious abortion, usually carry her calf?
2. Does a cow thus affected give the usual signs of calving beforehand?
3. Is there a certain means of telling when a cow slips her calf, whether she is affected or not? If so, how?
4. Are cows, after once recovering, immune from the disease?

A SUBSCRIBER.

Ans.—1. There is no definite time. Some abort soon after being bred; others may carry their calves nearly the full nine months.

2. Some do, if they have carried their calves up to near the usual period of pregnancy.

3. The only method would be by isolating the organism which causes the disease, so that, practically, there is no method.

4. Cows generally become immune in from two to three years.

Big Dispersion Sale of 90 Holsteins 90

An event, in which the choicest lot of Holstein Cattle ever sold by Auction in Canada, will be held in the covered rink in the City of Woodstock, Ontario, on

Wednesday, December 17th, 1913,

when a total dispersion of the big high-record herds of Mr. Elias Ruby and Messrs. Jacob Leuzler & C. Ballert will be sold to the highest bidder. 90 head; 78 females, 12 bulls.



Practically all the females in milk are in the R. O. M. and R. O. P. many of them in both records.

R. O. M. four-year-olds and upwards, from 21½ to 27½ lbs. Three-year-olds 16.41 lbs. Two-year-olds 15½ lbs. R. O. P. up to 807 lbs. butter in the year.

Much of the richest producing blood of the breed is represented in the herd, many are high-class show animals, many of the young things are the get of King Lyons Hengerveld, one of the richest bred bulls alive, those not bred to will be bred to, King Lyons Colantha, whose 7 nearest dams have records averaging 28½ lbs., these are the kind of Cattle we are going to sell.

Terms: Cash or 5 months with 7%.

For Catalogue, Write

JACOB LEUZLER, R. R. No. 1 BRIGHT
Sales Manager

E. M. Hastings, Laconia, N. Y., Col. B. V. Kelley, Syracuse, N. Y., and Col. R. E. Hagar, Algonquin, Ill.
Auctioneers

Sale at 10 a.m.

Ship your LIVE STOCK to the old firm of
DUNNING & STEVENS, Inc.
Commission Merchants EAST BUFFALO, N. Y.
Room 1, Live Stock Exchange Building
Established 1876 Paid-in Capital, \$100,000
Write for market paper or pass books

FAIRVIEW FARMS HERD

Offers For Sale

A son of PONTIAC KORNDYKE, out of a cow with a record of over 31 pounds in 7 days. Calf is nearly ready for service. Have only a few sons of this great sire left, and remember these are the last. LOOK UP THE RECORD OF SONS OF PONTIAC KORNDYKE, AND SEE WHAT THEY ARE PRODUCING.

E. H. DOLLAR :: :: HEUVELTON, NEW YORK

LAKEVIEW HOLSTEINS

Herd headed by Count Hengerveld Fayne De Kol, by Pieter's Hengerveld's Count De Kol out of Grace Payne 2nd. He has 15 daughters already in the herd of Merit and many more to follow. Junior sire.—Dutchland Colantha Sir Moss, by Colantha and Johanna Lad out of Mona Pauline de Kol (27.18 butter) the dam of one daughter over 30-lbs. and one over 27-lbs; also the dam of the World's champion junior three-year-old for milk production. A few bull calves for sale. E. F. OSLER, Bronte, Ont.

HOLSTEIN CATTLE

The Buyer's Opportunity

We have more Cattle than we can stable. Some of the finest young bulls and heifers we ever offered; their breeding and quality is the very choicest, they will be sold worth the money. Don't wait to write, but come and see them.

D. G. FLATT & SON, R.R. No. 2, Hamilton, Ont. Long Distance Phone 2471

Riverside Holsteins

Herd headed by King Johanna Pontiac Korndyke whose near dams and sisters, 13 in all, average 28.71 lbs. butter in 7 days. His sister, Pontiac Lady Emma dyke, has a record of 28.02 lbs. butter in 7 days, 156.92 lbs. in 30 days—world's records when made. We are offering several females bred to this bull also a few bull calves.

J. W. RICHARDSON,
R. R. No. 2, Caledonia, Ont.

Beaver Creek Holsteins and Percherons
When wanting some right nice Holsteins of any age, workers and bred from workers, also young bulls, write me. One 4-year-old and one yearling, Percheron Stallions for sale. also Buff Orpington, Cockerels and Pullets.

A. MITTFELDT, ELCHO P.O., SMITHVILLE STATION

HOLSTEIN - FRIESIANS

Bulls ready for Service. Prices from \$75 to \$150, according to dam's Record. A few fine Bull Calves also. Prices \$25 to \$75. One with dam's Record 16.46 Butter at 2 years.

D. B. TRACY :: :: COBOURG, ONT

Evergreen Stock Farm High Class Registered Holsteins

Winners of 80% all first prize at the Canadian National Exhibition 1913. For Sale—a few choice females all ages and are booking orders for what bull calves will be dropped during Nov. and Dec. I will also buy on commission anything in pure-bred or grade Holsteins, singly or car lots. Bell 'phone

A. E. HULET, NORWICH, ONT. R. R.



Bone Spavin

No matter how old the animal, how lame the horse, or how many doctors have tried and failed, use

Fleming's Spavin and Ringbone Paste

Use it under our guarantee—your money refunded if it doesn't make the horse go sound. Most cases cured by a single 5-minute application—occasionally two required. Cures Bone Spavin, Ringbone and Sidebone, new and old cases alike. Write for detailed information and a free copy of Fleming's Vest-Pocket Veterinary Adviser

Ninety-six pages, durably bound, indexed and illustrated. Covers over one hundred veterinary subjects. Read this book before you treat any kind of lameness in horses.

FLEMING BROS., Chemists,
75 Church Street, Toronto, Ont.

WHY WE PAY MORE FOR YOUR

Raw Furs

We are the oldest RAW FUR HOUSE, as well as the largest collectors of CANADIAN RAW FURS in Canada. That means larger experience, larger markets and a LARGER PRICE to you. Ship direct to us. Returns made same day furs are received. Shipments held separate on request. Fall price list now ready. Write for it.

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494 St. Paul St., Montreal
Mail Dept. "D"

CATTLE AND SHEEP LABELS

Size	Price doz.	Fifty tags
Cattle.....	75c.	\$2.00
Light Cattle	60c.	1.50
Sheep or hog	40c.	1.00

No postage or duty to pay. Cattle sizes with name and address and numbers; sheep or hog size, name and numbers. Get your neighbors to order with you and get better rate. Circular and sample mailed free.

F. G. JAMES, Bowmanville, Ontario

Farnham Oxfords & Hampshires

The Oldest Established Flock in America

We are making a special offering for 30 days of 30 fine yearling Oxford Down ewes. Being now bred to our imported Royal winning ram. Also 20 first-class Oxford Down ram lambs.

HENRY ARKELL & SON, Arkell, Ontario
Phone Guelph 240-2

ALLOWAY LODGE STOCK FARM COLLIES

A few young puppies now for sale both from imported and home bred stock. Place your order early for a good young Angus bull this year if you wish to secure first choice.

ROBT. McEWEN, BYRON, ONT.
Near London.

Oxford Down Sheep, Shorthorn Cattle, Yorkshire Hogs—Present offering: Lambs of either sex. For prices, etc., write to John Cousins & Sons, Buena Vista Farm - Harrieston, Ont.

Tower Farm Oxford Downs—We are offering a choice lot of ram and ewe lambs from our imported rams; also a few one- and two-shear ewes bred to our imported Hobbs ram winner at the Royal Show. E. Barbour, Erin, Ont., P.O. and station. L.-D. Phone.

HILTON STOCK FARM

We are sold out of Tamworths, also females in Holsteins, but still have some choice bulls for sale, from two to six months, officially backed and right good ones.

R. O. MORROW & SON, Hilton, Ontario
Brighton Sta. Phone.

PINE GROVE YORKSHIRES

Bred from prize-winning 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. Joseph Featherston & Son, Streetsville, Ont.

Poland-China Swine for sale from the champions of Canada; also a few good Chester Whites, and choice young Shorthorns of either sex. Prices right.
Essex Co. Geo. Gould, Edgar's Mills, Ont.

Prize Chester White Swine—Winners High-class in type and quality, bred from winners and champions. Young stock both sexes, any age, reasonable prices.
W. E. Wright & Son, Glanworth P.O., Ont.

Tamworths—Boars \$15 to \$30, sows bred for spring farrow \$40 to \$50 each, registered. Write for particulars.
JOHN W. TODD, Corinth, Ont.

Marion (just from the telephone)—"He wanted to know if we would go to the theater with him, and I said we would."

Madeline—"Who was speaking?"
Marion—"Oh, gracious! I forgot to ask."

Gossip.

Shipments of Clydesdales from Scotland to Canada, in the first and second weeks of November, were consigned to William Meharey, Russell, Ont.; R. N. Harris, and Barber Bros., Gatineau, Que., and W. J. McCallum, Brampton, Ontario.

The annual sheep returns for New Zealand this year show an increase over last of nearly half a million. The total number of sheep in that country is now over twenty-four millions, being owned by 21,527 sheep farmers. Five million sheep and lambs are killed for export every year.—Farmers' Gazette.

SUCCESSFUL JERSEY SALE.

At the seventh annual auction sale of imported and Island-bred Jersey cattle, held on November 3rd, at Burr Oak Farm, Shelbyville, Kentucky, by W. R. Spann, 108 head sold for an average of \$276.85. The top price for a cow was \$800, for the two-year-old, Princess Michaelmas Daisy; another brought \$750, and three others from \$600 to \$650 each. Five hundred and twenty-five dollars was the highest price obtained for a bull, Noble's Gamboge Knight bringing this price, two others reaching \$500 and \$300 each. A yearling heifer sold for \$300, and a heifer calf for \$400. Four daughters of Bright Prince sold for \$1,870. Bright Prince was bought by B. H. Bull & Son, of Brampton, Ont., at Linden Grove, in 1912.

At Nashville, Tenn., Nov. 5th, the Ravenscourt herd of Dr. W. G. Ewing was dispersed, the 63 head offered realizing an average of \$262. The center of attraction was the herd bull, Raleigh's Noble, three years old, and sold for \$2,250 to J. M. Overton. The highest price reached for a cow was \$525, for Imp. Golden Maid's Princess Fern, four years old.

SHORTHORNS, COTSWOLDS AND BERKSHIRES AT WOODBURN.

One of the oldest established and most reliable stock farms in Western Ontario, is Woodburn, the property of E. Brien & Sons, of Ridgeway, Ont. For over 50 years they have been breeding Shorthorn cattle, Cotswold sheep, and Berkshire swine. The Shorthorn herd, while not a large one, is an exceptionally select one, nice in type, flesh and quality, representing the Minas, Rosemarys, and Mayflowers, at the head of which is the Toronto prizewinning son of the noted breeding bull, Trout Creek Wonder, and out of an imported Dutch-bred dam. For sale are several choice young bulls and a few heifers. The Cotswold flock is one of the largest and best in Canada, over 200 breeding ewes, all either imported or bred directly from imported stock, and none but the very best imported rams have been in use on the flock. Those in use at present are both of Swanwick breeding, and both Royal winners. These, bred to the Garne- and Houlton-bred ewes, are producing most satisfactory results. High-class show material, and winners at all the leading shows, are plenty in the herd. Another stock ram used to some extent is a home-bred one that was first at London and second at Toronto last fall, and first at the Toronto Winter Show. For sale are about fifty ram lambs and a number of shearing rams, as well as shearing ewes and ewe lambs, all of the highest possible merit. The Berkshires are up to the same high standard. Established over fifty years, the herd has always been one of the foremost show herds in Ontario, and what is of vital importance to parties looking for breeding stock in Berkshires, is the fact that all these years winners have been bred in the herd, and the sows are kept for breeding, and not expensive ornaments kept year after year for no purpose other than to show. Stock from this herd has been the foundation of herds from one end of this country to the other. The stock boars used have been selected from the best in Canada, the United States, and England. At the present time, one of them is from the noted herd of W. E. Spicer, of Bushnell, Ill., and was first at the American Royal Show held at Kansas City. The other was bred in the Ruddington Hall herd in England. Choice young Berkshires of either sex are always for sale. See the advertisement, and write the Messrs. Brien.

Roofing Information

THE days of hand-made wood shingles, such as our grandfathers used, are past. To produce such shingles to-day would cost far more than the best galvanized steel shingles. The ordinary sawn shingles of to-day are a miserable substitute. Their life-time is short because the rough surface holds water like a sponge and collects chaff and decaying vegetable matter which quickly rots the wood.

Galt Steel Shingles make the best and most durable roofing you can buy. They have special patented features possessed by no other steel shingles on the market.

Write to-day for literature and valuable information, which may save you hundreds of dollars. Simply write the word "Roofing" on a postcard, together with your name and address.

THE GALT ART METAL CO., Limited
150 Stone Road, Galt, Ontario.
Cor. Richard and Pine Sts., Winnipeg, Man.

MILK - BUTTER - BEEF

ECONOMICALLY INCREASED BY BALANCING THE GRAIN RATIONS WITH

OWL BRAND COTTON SEED MEAL
F. W. BRODE & CO.

LEARN TO FEED A BALANCED RATION



WRITE TO
CRAMPSEY & KELLY, 780 Dovercourt Road Toronto, Ontario
Exclusive Canadian Agents. We can ship you any quantity, from 100 lbs. to a carload.

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, shearlings and ewe lambs Yorkshires of all ages.

J. A. CERSWELL, BOND HEAD P.O., ONTARIO
Bradford or Beeton stations. Long-distance 'phone.

Shropshires and Cotswolds In my 1913 importation of 60 head just arrived are show rams and ewes, field rams and ewes of both breeds. I also have 50 home-bred yearling rams and ewes, and a fine lot of ram and ewe lambs. Will be pleased to hear from you if interested in sheep as "No business no harm" is my motto. **JOHN MILLER, Brougham, Ont., Pickering Stn., G.T.R. 7 miles. Claremont Stn., C.P.R., 3 miles.**

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, shearlings.

E. BRIEN & SON

RIDGETOWN, ONT.

HAMPSHIRE SWINE

Both sexes and all ages from imported stock. Prices reasonable.
G. A. POWELL, ARVA, ONTARIO
Four miles north of London.

Hampshire Swine

I have a choice lot of Hampshire swine belted hogs for sale. Will be pleased to hear from you, and give you description and prices.
J. H. Rutherford, Box 62, Caledon East, Ont.

ELMHURST LARGE ENGLISH BERKSHIRES

From our recent importation of sows, together with the stock boar Suddon Torredor, we can supply select breeding stock, all ages. Satisfaction and safe delivery guaranteed.
H. M. VANDERLIP, Breeder and Importer, Cainsville P.O. Langford Station on Brantford and Hamilton Radial

DUROC JERSEY SWINE

Twenty-five sows bred for fall farrow; a few boars ready for service; also one Jersey bull, 11 months, and two bulls, 6 months old, out of high-producing dams. Mac Campbell & Sons, Northwood, Ont.

Cloverdale Large English Berkshires

No matter what your needs in Berkshires may be, see Lang the live Berkshire man. He is always prepared to furnish anything in Berkshires. Write or come and inspect.
C. J. LANG, Hampton, Ont., Durham Co.

Large White Yorkshires

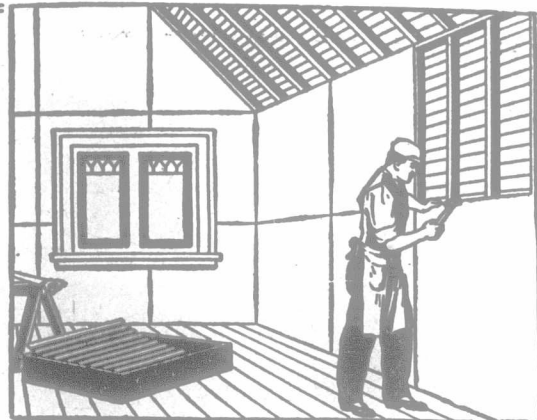
at reasonable prices. All breeding stock imported, or from imported stock from the best British herds. Write or call H. J. DAVIS, Woodstock, Ont.
Long-distance 'phone.

Gramandyne Yorkshires & Tamworths

Gramandyne Stock Farms Co., 656 Parkdale Ave., Ottawa, Ontario, can supply Yorkshires and Tamworths of either sex, any age, bred from prize-winners, and better. Long-Distance 'Phone. 3874 Ottawa.

Morrison Tamworths and Shorthorns

bred from the prize-winning herds of England. Have two choice young bulls for sale 10 months old, out of large deep-milking cows and also some choice cows. Tamworths both sexes.
CHAS. CURRIE, Morrison, Ont.



Applying Wall Board to Studding

For a Better House--At Lower Cost--In a Month Less Time--Use

BISHOPRIC WALL BOARD AND SHEATHING

Bishopric Wall Board is made in sheets 4 x 4 feet by imbedding dressed laths, under 500 lbs. pressure, in one side of a sheet of hot Asphalt-Mastic and surfacing the other side with sized fibre-board. It comes to you in crates of 16 sheets, ready to nail on the wall, and any handy man can put it on in far less time than skilled workmen can apply lath and plaster.

Bishopric Wall Board goes on DRY, so that you can move into the house the day it is finished, without weeks of waiting for it to set and dry.

On account of the lath (and Bishopric is the only Wall Board made with lath) it makes a flat, rigid, substantial wall. On account of the patented Asphalt-Mastic it makes a moisture-proof, rat- and vermin-proof, fire-resisting wall, warm in winter and cool in summer. On account of the surface of sized fibre-board it makes a wall that is easily painted or papered.

The first cost of Bishopric Wall Board is less than that of lath and plaster—it never falls off, so costs nothing for repairs—and it saves on the fuel bills every winter.

If you are building or remodelling, write us—a post card will do—it will bring you information of real dollars-and-cents value. Address Dept. "L."

Working Plan for Bishopric Model Home:—Send six cents to cover cost of mailing to our office in Ottawa, and we will send you architectural plan for building, etc.

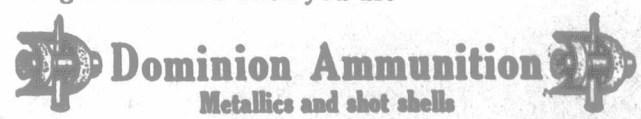
Bishopric Stucco Board, made specially for stucco work. Write for sample.

BISHOPRIC WALL BOARD CO., LIMITED
Room 44, Canada Life Building OTTAWA, ONTARIO



Accuracy at the Traps

THERE is a great deal of satisfaction in being absolutely sure of every shot. The fascinations of trap shooting are doubled when you use



High scores at the traps are made only when the shells are perfect in every detail. The sure fire primers, quick combustion, high velocity and close pattern are reasons why Dominion shells continue to make such high averages. Dominion shells insure positive operation of repeaters and double guns, and every one bears an unqualified guarantee. Your dealer carries them.

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Montreal, Canada

Weatherproof is expense-proof

Trinidad Lake asphalt makes roofing lastingly tight against rain, sun, wind, snow, heat and cold.

This is the everlasting waterproofer of Nature. We use it to make

Genasco THE TRINIDAD-LAKE-ASPHALT Ready Roofing

Because it gives absolute protection Genasco is economical roofing—it costs less in the end. Ask your dealer for Genasco. Mineral or smooth surface. Look for the hemisphere trademark. The Kant-leak Kleet is in every roll of smooth surface Genasco. It water-proofs seams without cement and prevents nail-leaks.

The Barber Asphalt Paving Company Philadelphia
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Victoria, B. C. Montreal, Ottawa, Toronto
D. H. Howden & Co., Ltd. The Canadian Asphalt Co., Ltd.
200 York St., London, Ont. Winnipeg, Man.

Trinidad Asphalt Lake

Look at This Transformation

Unproductive Field

C.X.L. Stumping Powder

Made it Productive

Write us about arranging demonstrations, also for our free booklet; it tells you how the above facts were accomplished.

Canadian Explosives LIMITED

Montreal, Que. Victoria, B. C.

You and Your Friends are Invited to the

TORONTO FAT STOCK SHOW

Union Stock Yards, Toronto

Judging: Saturday, December 6th, 1913

Auction Sale of Prize Winners

Monday, December 8th, 1913

Unsurpassed Exhibit of Cattle, Sheep and Swine.

Admission Free. Reduced Passenger Fares

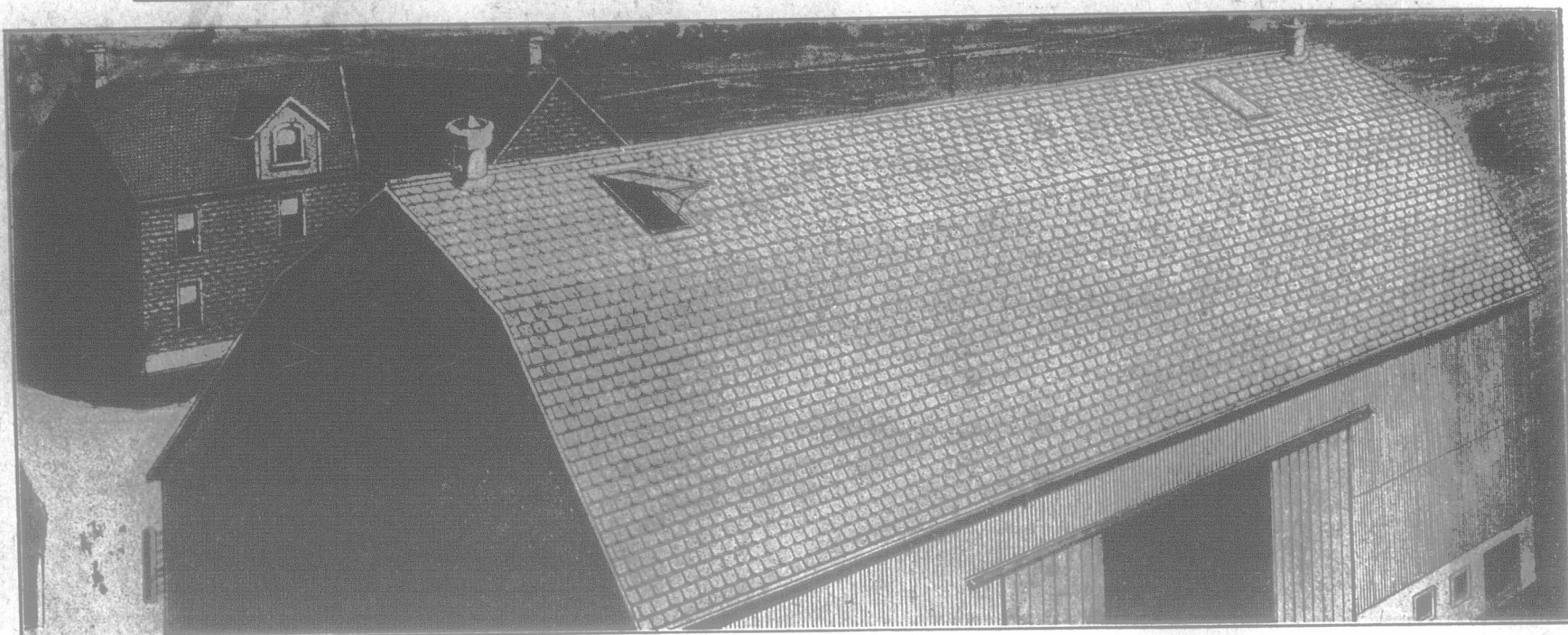
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Make Winter Driving Comfortable

They keep the feet warm and cozy in any style of vehicle in coldest weather. There is no flame, smoke or smell, and one of these heaters will last a lifetime. They fit in at your feet and occupy little space. They cannot be bent or broken. We make twenty styles, some as low as \$1.25 each. We guarantee that you will be pleased or money refunded. Get one from your dealer or write for complete catalog. Write today. You will never know what real comfort means during cold weather riding until you get one of these heaters.

Chicago Flexible Shaft Company
110 La Salle ave., Chicago

To the Man Who is Going to Build Please Send Us Your Name



You'll Get a Lot of Important Facts About Roofs— Information You Need RIGHT NOW—ALL FREE

Like every other sensible man, you are anxious to secure all the information possible BEFORE you plan your buildings, or buy any of the supplies. You cannot know too much—the danger is in knowing too little. There is not much satisfaction in saying "I wish I had known" after the building is up, and something you have purchased turns out disappointing. This is why we urge you to consider all the important facts about roofing NOW—before you build. Just send the coupon.

We'll Save Many Dollars of Roofing Expense for the Farmers Who Write NOW

Just be curious—eager to get information—it will save you money and and will save you trouble. You are not asked to spend any money or anything. Just send us your name and address, and we will put in your hands information that will be worth money to you if you are going to build any new buildings, or repair any old ones. No man can fail to be wiser by having INVESTIGATED the different metals and materials used in modern buildings. Perhaps you won't build or repair your buildings the "METALLIC" way—that is for you to decide—but the time to decide is **after** you consider all the FACTS.

Just Write YOUR Name and Address on This Coupon

Clip it out, put it in an envelope and mail it to our office nearest you. We will then send you immediately the information you need before you can build to your best advantage. Sign and send the coupon now.

THE METALLIC ROOFING CO., LIMITED King and Dufferin Sts., Toronto

I am planning to erect a in the near future, and will be glad to receive any information you can send which will help me build a better building and save money.

Name

Address

I am particularly interested in your (Mark X opposite items you want) (Mark X opposite items you want)

<input type="checkbox"/> "Eastlake" Metallic Shingles	<input type="checkbox"/> Corrugated Iron	<input type="checkbox"/> Metallic Ceiling
<input type="checkbox"/> Halitus Ventilator	<input type="checkbox"/> Metallic Siding	<input type="checkbox"/> Weather Vanes
<input type="checkbox"/> Acheson Barn Roof Lights	<input type="checkbox"/> Eave Trough and Conductor Pipes	

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"EASTLAKE" Metallic Shingle

"Eastlake" Steel Shingles can be layed for 25c. a square less than any other metallic shingle. This is the roofing that for over 25 years has been invariably chosen by the largest users of metallic roofing and siding in Canada, for the scores of grain elevators erected every year in the western provinces. No roofing could have a more severe test. Isn't this the roofing for your buildings?

"Eastlake" Metallic Shingles reduce your roofing cost, protect your buildings from fire, lightning and weather. Give longer service than any other roofing. Cost less to lay. Are rust-proof and do not require painting. "Eastlake" roofs laid 28 years ago are still giving good service. The only shingle that has been in use in Canada for 28 years—never changed in an important detail of any kind—metal, design or size—during all that time.

Corrugated Iron—"Metallic" Corrugated Iron makes buildings that last a lifetime. Costs less than lumber—makes a better-looking barn, besides. Made in galvanized or painted sheets, straight or curved.

Metallic Ceiling makes a home more attractive, fireproof and sanitary. Made in a great many beautiful designs. Easy to put on. Will outlast any building.

Weather Vanes—An ornamental Weather Vane relieves a building of that plain appearance. We can supply any design in galvanized steel, stem of galvanized wrought pipe. Tell us what design you like, and we will submit full size pattern for approval, without charge.

"Halitus" Ventilator—Unquestionably the best and most efficient ventilator sold at any where near its price. Your home and barns need ventilation. Get the "Halitus."

"Acheson" Barn Roof Lights shown in the above illustration are the perfection of simplicity and absolutely weather-tight—inexpensive. Let sunshine and fresh air in—heated air, smoke and chaff out—keeping the building wholesomely ventilated.

If particularly interested in any of these products, ask for further information.

