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AND HOME MAGAZINE

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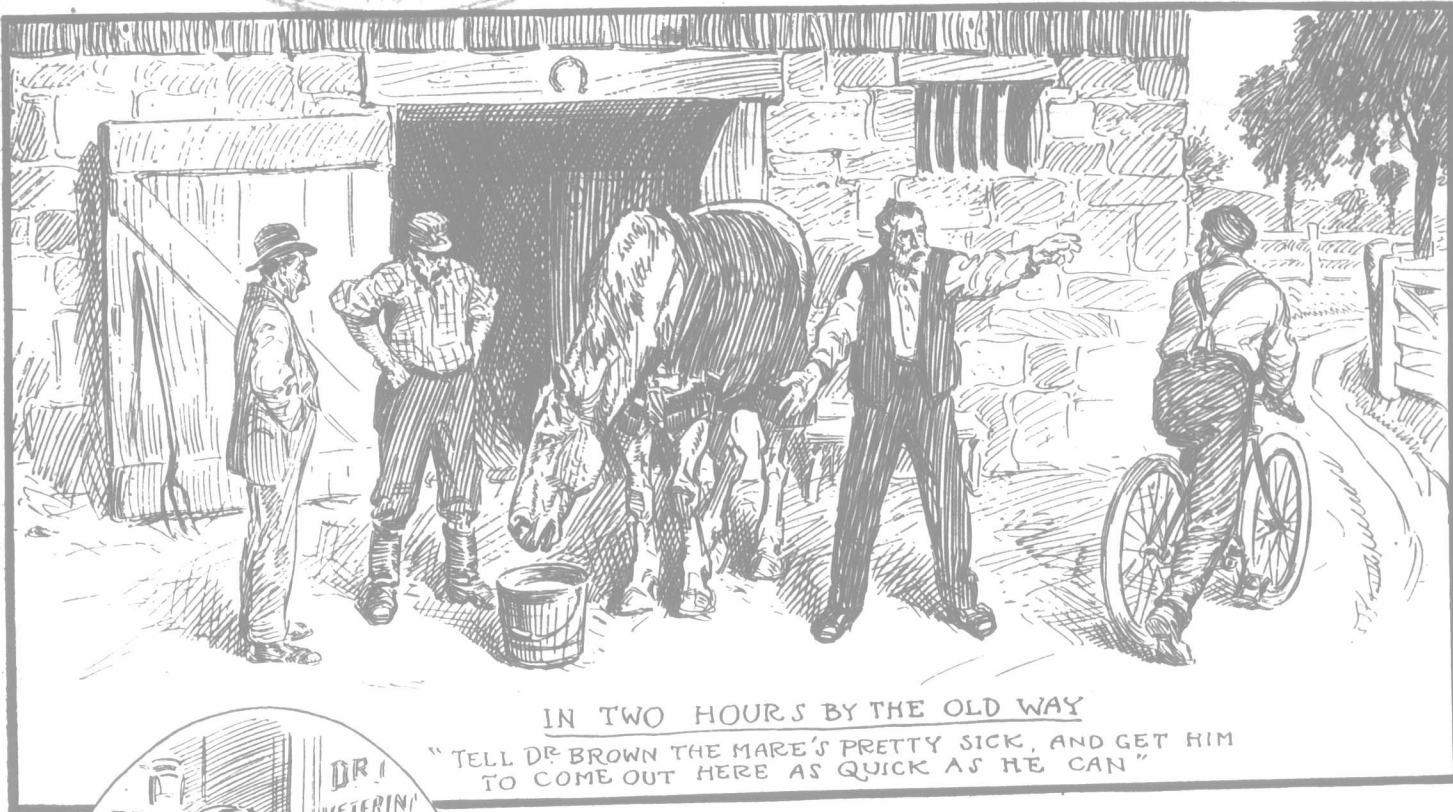
AGRICULTURE, STOCK, DAIRY, POULTRY, HORTICULTURE, VETERINARY, HOME CIRCLE.

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Vol. XLVII.

LONDON, ONTARIO, JUNE 20, 1912.

No. 1030



IN TWO MINUTES BY THE NEW

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It is the latest publication on telephones, and is of special interest to those contemplating the erection and equipment of an up-to-date rural or municipal telephone system. We offer it free. Send us your name and address.

THE above illustration is one of 32 graphic illustrations, showing the value of a rural telephone system, that are to be found in our famous book entitled "Canada and the Telephone." A copy of this interesting book will be mailed free to you on request.

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As all our telephones are fully guaranteed for a term of years against any defect in material or workmanship, your company is afforded the fullest protection when dealing with us.

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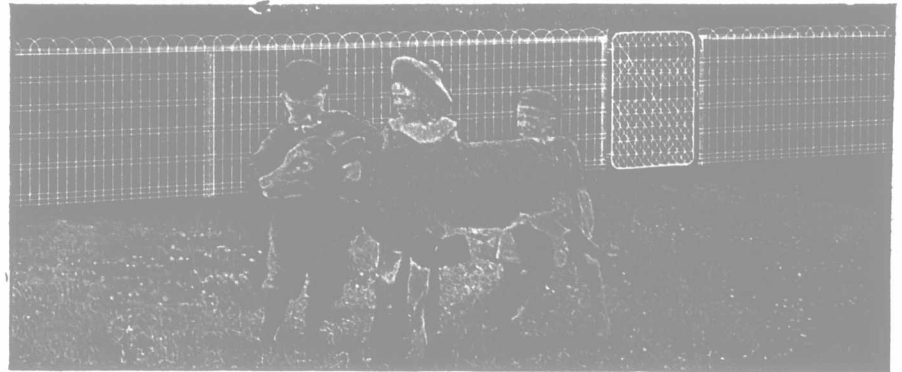
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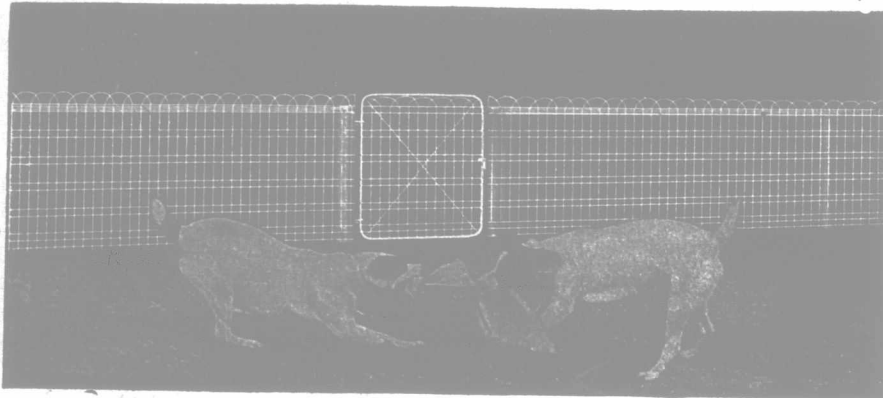
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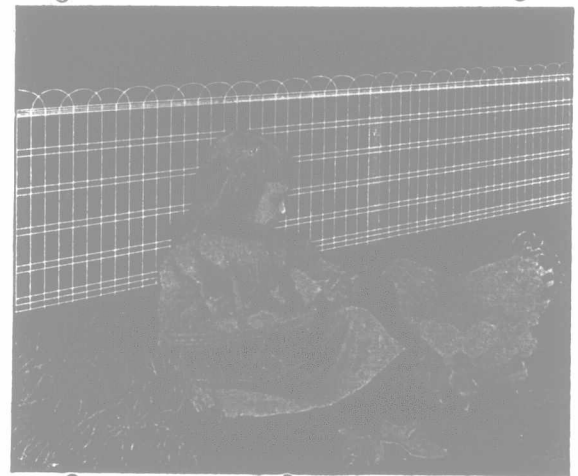


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ANY PERSON who is the sole head of a family, or any male over 18 years old, may homestead a quarter section of available Dominion land in Manitoba, Saskatchewan or Alberta. The applicant must appear in person at the Dominion Lands Agency or Sub-agent of the district. Entry by proxy may be made at any agency, on certain conditions, by father, mother, son, daughter, brother or sister of intending homesteader.

Duties—Six months' residence upon and cultivation of the land in each of three years. A homesteader may live within nine miles of his homestead on a farm of at least 80 acres solely owned and occupied by him or by his father, mother, son, daughter, brother or sister.

In certain districts a homesteader in good standing may pre-empt a quarter-section alongside his homestead. Price, \$3.00 per acre.

Duties—Must reside upon the homestead or pre-emption six months in each of six years from date of homestead entry (including the time required to earn homestead patent) and cultivate fifty acres extra.

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W. W. CORY,

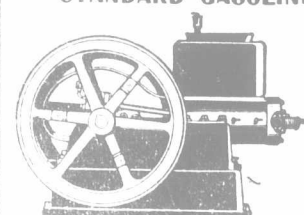
Deputy of the Minister of the Interior.

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London Concrete Machinery Co. Dept B London, Ont. Largest makers of Concrete Machinery in Canada



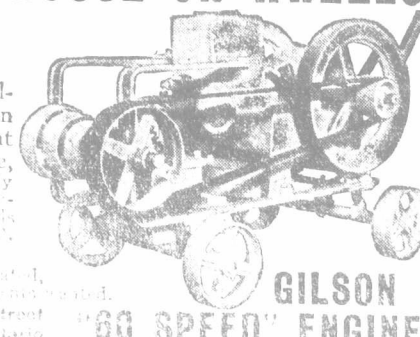
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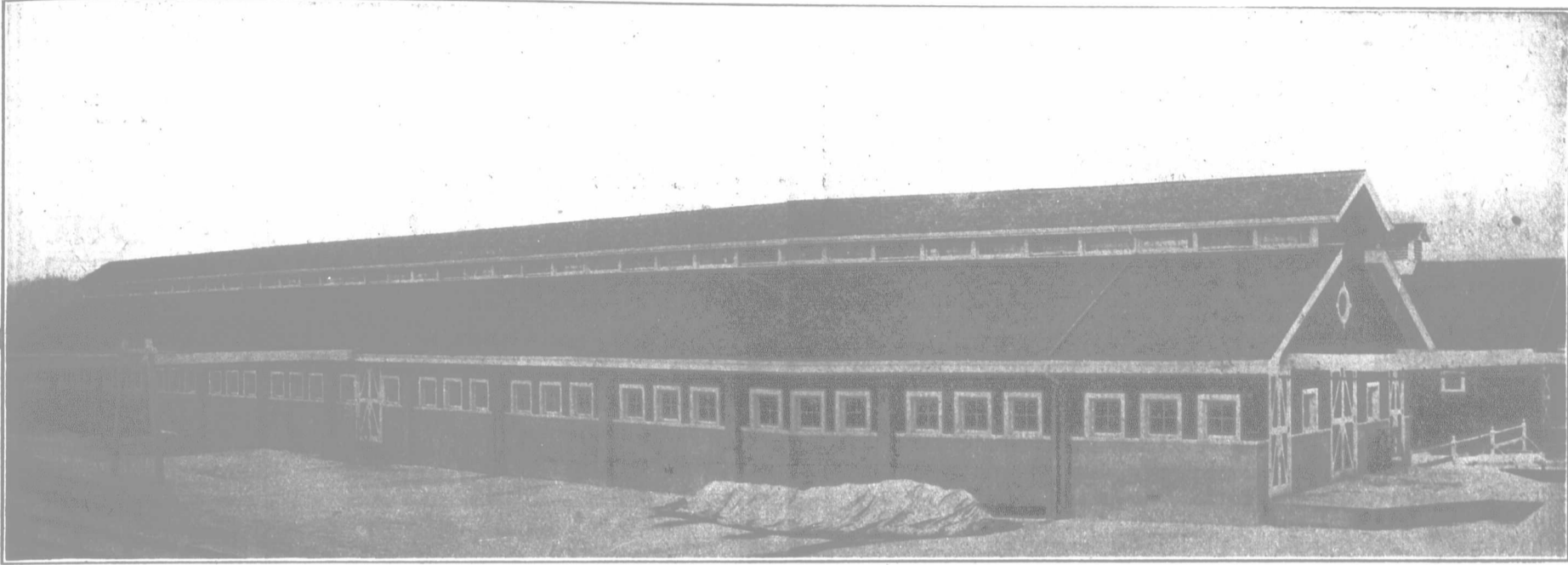
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The Biggest Dairy Barn in Canada

EQUIPPED THROUGHOUT WITH BT SANITARY BARN EQUIPMENT

The barn shown in the illustration was built at Coquitlam, B. C., by the British Columbia Government. It has a capacity of one hundred and fifty head of dairy cattle, and is equipped with BT Stalls, Feed and Litter Carriers and Hay Carriers.

Whenever a careful investigation is made, BT Equipment is always chosen. The Dominion Government built three and the Provincial Governments some 20 barns in different parts of Canada, and in every case BT Equipment was used. Don't buy until you investigate BT Equipment.



The equipment for this barn was sold by Messrs. A. G. Brown-Jameson & Co., of Vancouver, who are our representatives for British Columbia

STEEL STALLS ARE SANITARY

Steel Stalls do not soak up manure. When used with a cement floor you have a perfectly sanitary stable. The main cause of the spread of tuberculosis in cattle is through urine and manure. No danger with Steel Stalls.

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Sunlight is the best disinfectant in the world. With Steel Stalls there are no dark corners. They allow a free movement of light and air. It is easy to keep a stable equipped with BT Stalls clean.

COW COMFORT MEANS INCREASED PRODUCTION

A cow tied in a BT Stall and Stanchion has the maximum freedom consistent with keeping her lined up in her stall. She can card herself on almost any part of her body. Tied centrally in her stall she is free to lie down on either side. She can freely get up or down, but at the same time she is prevented from moving backward or forward in her stall, so that she can be lined up on the cattle-stand and all droppings go in the gutter, not on the cattle-stand. That means clean cows.

STEEL STALLS ARE DURABLE

When you put in BT Stalls with a good cement floor you have a permanent job, no posts rotting off, no partitions breaking, no repairs to make. Isn't that worth something?

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A stable equipped with Steel Stalls and a cement floor is not nearly as liable to take fire as a wood stable. In fact, the lower part of the barn would be almost fireproof. Should fire occur, however, cows tied in BT Stanchions can be let out in less than half the time required with chain ties.

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In two hours you can set up 20 BT Stalls, and as soon as the cement is dry your stable is ready for the cattle. Isn't that better than buying expensive lumber and posts, getting it dressed and hiring expensive carpenters and boarding them for days while they put in your stable? You can remodel your stable yourself if you use BT Stalls. From our book on Stable Construction you get complete information as to how to lay cement floors—the best measurements for stalls, and how to set them up quickly and properly.

COST NO MORE

Don't think that BT Stalls are too expensive for you. BT Stalls cost no more than other makes of steel stalls, and a good steel stall outfit can be installed in your stable as cheaply as the old style wooden stall. Why not have the best? By filling out the coupon you will know what it will cost you to fit out your barn with a BT Equipment.



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At a cost of over \$2,000 we have produced a book on Stable Construction, it tells how to build a dairy barn from start to finish. It gives the latest and best system of ventilation, which has been carefully prepared by J. H. Grisdale, Dominion Agriculturist. It gives the best barn plans approved by our best dairymen. It tells how to lay cement floors that will be dry and warm for the cattle, and gives the best measurements for manger, cattle-stand and gutters. This book is free. Send the coupon.

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The BT Line also includes Hay Carriers, Forks, Slings, Litter and Feed Carriers and Water Bowls. Mention if you will need any of them.

BEATTY BROS.

Fergus, Ontario

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How many cows have you?

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Will you need a litter carrier or hay track?

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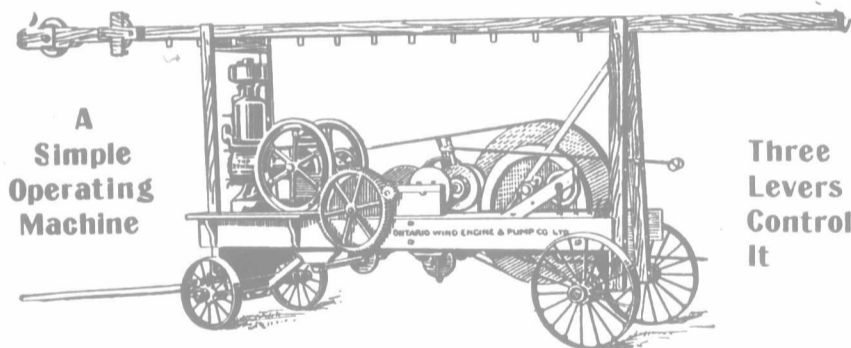
With the New Perfection Oven, the New Perfection Stove is the most complete cooking device on the market. It is just as quick and handy, too, for washing and ironing.

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Three Levers Control It

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Ontario Wind Engine & Pump Co., Limited
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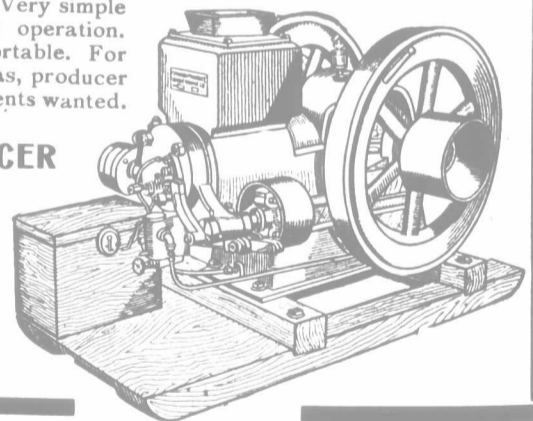
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Vol. XLVII.

LONDON, ONTARIO, JUNE 20, 1912.

No. 1030

EDITORIAL.

The evil of ripened weed seeds lives after them in alarming profusion.

It is not enough to hit the nail on the head; it should be driven in far enough to hold.

Cleanness in field and garden is cumulative. By destroying weeds early this season, next year's labors will be reduced to a minimum. Put it to proof.

People who continually grumbled about coldish days in early June forgot that tender plants were being retarded and hardened to withstand some frosty nights.

Do not pass by an unknown plant in your fields as an "innocent abroad." It may prove a dangerous weed. A complete sample, with root and flower, mailed to "The Farmer's Advocate" for identification, may save endless trouble later on.

Corn-growers find in a frosty June poor compensation for a soaking May. However, a few weeks of warm, moist weather during the latter part of June and the two midsummer months would soon cause us to forget the backward planting season.

One of the amusing anomalies of the times is the way in which people located in the farming districts of Eastern Canada, unsurpassed anywhere on the continent, have been casting their eyes hither and thither for places in which to "get on."

Pigeons and rabbits kept by small boys for amusement become serious neighborhood pests. The way pigeons will pull up sprouting seed peas is "a caution," to say nothing about the fouling of roofs and barns. Both pigeons and rabbits should be exterminated without quarter.

Much can be done towards cleaning a farm by mowing the meadows early. Millions of weed seeds mature between the beginning and end of haying. Clover should be cut early, anyway, for the sake of the aftermath, and all dirty fields should be mown early to forestall the seeding of weeds.

"The radical who stirs up our inert conservatism may not be altogether agreeable to us, but we may need him just the same." The Christian Guardian thus lucidly and tersely puts a truth in the realms of morals and ecclesiastics that is just as applicable in relation to the theory and practice of farming. Because things have been done a certain way in the past, their continuance in perpetuity does not follow.

It is generally advised to cut alfalfa when about one-tenth in bloom. Another rule, and perhaps a safer one, is to cut when the shoots for the new growth have started out nicely from the crowns. Cutting earlier than this is liable to result in a delay before the next crop commences to spring up. As a usual thing, we believe the two rules quoted will coincide, though we have not observed the one point often enough to be positive.

Canada and the Milking Shorthorn.

What is the position of Canada to-day in regard to the milking Shorthorn or the dual-purpose cow suited to the general farm? Few clearer explanations could be made than that given by Peter White in his presidential address to the Dominion Shorthorn Breeders' Association in Toronto last February. Mr. White said: "Canada is a rapidly-growing country, and by heredity and geographical position is and will continue to be a beef-eating country. A few years ago, beef could be produced on our Western prairies at practically the cost of help to herd it. Interest on land investment and feed entered, if at all, very slightly into the cost of production. This was the case not only in Canada, but also in the neighboring republic, and in both these countries beef could be grown at a fraction of the real cost of producing beef under normal conditions. This has had two very marked tendencies, which I fear not too many of us appreciate fully. First, as very heavy milking propensities were not required, in fact not desirable on the open range, and as we were breeding possibly more than we knew to suit the rancher, most of us, to a certain extent, at least, lost sight of the fact that the Shorthorn is a milk cow, and were rather encouraged to breed with the ideal perfect beef form in mind. Second, the Eastern farmer, on high-priced land, because he could not compete with this cheaply-produced beef, has been forced more and more into dairying."

The settler has now practically put an end to ranching on a very large scale, so that we are without extensive beef production in Canada. Western Canada is covered with wheat where once the beef herds roamed. Eastern Canada is paying more attention to dairying, as suggested by Mr. White. In the past, our breeders and importers showed a strong preference for the extreme beef type of Scotch or Scotch-topped cattle. These being light milkers, have grown into disfavor with milk producers. We cannot do without milk, and we want beef. The average farmer will not make the success of specialized agriculture that he will of mixed farming. The dual-purpose Shorthorn lends itself readily to mixed farming, and may be made profitable for beef and milk, as well. Shorthorn breeders do not enjoy the demand from the West that they once did. They must make their cattle profitable at home. The solution is the combination of milk and feeding qualities. The need for work in this direction is quite apparent.

The Ontario Government, recognizing this need, have made arrangements through Hon. Jas. Duff, Minister of Agriculture, to spend some \$12,500 for the purchase of dairy Shorthorns in the Old Land. No better move could be made. England has some heavy-milking, registered Shorthorn cows. The great City of London depends almost entirely for its milk upon the heavy-producing Shorthorns of the surrounding country. The cows are there, and there is no reason why we cannot get them here. The amount of money set aside is sufficient to lay the foundation herd of a strain of milkers in Canada, from which in time they could be disseminated throughout the country.

Great care must be taken in the selection of this foundation stock. We understand that Prof. G. E. Day, of the O. A. C. is to be entrusted with the task of making the selection, and no

better judge could be chosen for the work. If possible, only cows with undisputed milk records should come to Canada, and these cows, besides being heavy milkers, should be individuals showing a type which would lend itself to the production of beef, as well. Such cows are not overly plentiful in any country, and a considerable length of time will be necessary to make the selection, as pedigrees and a knowledge of the past history of the individuals and the families to which they belong is absolutely necessary.

Selection is not the greatest problem in connection with this undertaking. Future breeding and management holds in store many intricate problems for the man in charge, whoever he may be—that is, provided the herd is held intact when landed on Canadian soil. Bringing the cattle out and dispersing them would be folly, as the effect would be so little in each locality as soon to be lost sight of entirely. The only way to make the importation of lasting effect is to hold it together on one farm in charge of an experienced man. Establishing a strain of Shorthorn cattle noted for milking qualities, as well as beef propensities, is not the work of one year, ten years, nor even a score of years. It is the work of many decades. This new herd should be kept together, bred up and added to year after year to form a distributing center from which individual breeders may buy bulls and surplus heifers to build up and maintain their herds. Mixing the cattle with others will not be in the best interests of the undertaking. They should be so placed as to be an entirely separate herd, managed and run as such, and, if possible, a number of pigs kept in conjunction, and costs and profits carefully accounted and placed before the public to demonstrate the possibilities of the dairy Shorthorn. Few calves could be fed off for beef, as all which are suitable should be kept for breeding purposes. No breeder should take objection to the Government selling these cattle. They should not look upon it as opposition, but rather as an opportunity to improve their herds. Dual-purpose dairy Shorthorns are not going to become so plentiful in the next twenty years as to be a drug on the market. Some of the world's greatest breeds of horses would not have been what they are to-day without Government aid in breeding. There is no reason why, if properly managed, equal success should not follow the introduction of milking Shorthorns in Canada by the Governments of the Provinces or by the Federal Government.

Stock-breeding of any kind offers plenty of obstacles for the breeder, if improvement is to be made, and, without improvement, there must be retrogression, as it is impossible to stand still. The breeding of dairy Shorthorns is no easy matter, as the man who is placed in charge will doubtless appreciate after a few years' experience with them. The undertaking is of sufficient importance to warrant the entire attention of a competent man who should have land, stables and conditions favorable to the advancement of the project. Operated as an entirely separate herd in conjunction with the Ontario Agricultural College, with stabling and premises specially assigned to it, it would have several advantages, viz., that of demonstrating the possibilities to students, both short-course and regular; demonstrating to over 30,000 excursionists yearly the advisability of such a branch of agriculture, and the ease with which circulars and bulletins could be compiled and distributed to the public.

Wherever the Government chooses to place the

THE FARMER'S ADVOCATE AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL
IN THE DOMINION.

PUBLISHED WEEKLY BY
THE WILLIAM WELD COMPANY (LIMITED).

JOHN WELD, MANAGER.

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

1. THE FARMER'S ADVOCATE AND HOME MAGAZINE is published every Thursday. It is impartial and independent of all cliques 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.
2. 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.
3. ADVERTISING RATES.—Single insertion, 25 cents per line, agate. Contract rates furnished on application.
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12. 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 each 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.
13. 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
THE WILLIAM WELD COMPANY (LIMITED),
LONDON, CANADA.

cattle, they should be carefully bred up and improved under ideal conditions, and the young stock and bulls should be sold at the most reasonable prices to individual breeders to gradually improve the herds of the country.

Conserving and Increasing Fertility.

Almost anyone can farm in some kind of a way, taking annual toll of his soil fertility in the form of small-to-medium crops, but when the aim is to approach maximum production, raising good paying crops every year, while maintaining or gradually increasing the stock of available plant food in the soil, farming becomes, in truth, a "man's job," requiring brains of the first order. Some of the problems are presented in a manner calculated to arrest flighty ambition by Frank T. Shutt and A. T. Charron, of the Chemical Division, Experimental Farms, Ottawa, whose paper, recently read before the Royal Society of Canada, is synopsized in another part of this issue. Here are a few of the points with which we are specially impressed:

* * *

Fallowing is, of all operations, the most wasteful of soil fertility, but there is an inevitable and heavy depletion of the most valuable constituent (nitrogen) consequent upon the necessary tillage of the land. An experiment with a rich Saskatchewan prairie soil which had never received manure but had been cultivated for twenty-two years, during which time it had been bare-fallowed nine times, indicated that the soil lost, to a depth of eight inches, 2,206 pounds of nitrogen per acre, of which only 700 pounds had been removed in crops, while 1,500 pounds per acre, or 68 per cent. of the whole, had been dissipated through cultural operations and in other ways. Does this not argue for the prudence of keeping the land covered

with growing vegetation as much of the time as practicable?

* * *

Among leguminous soil improvers, the clovers and alfalfa were found to be the most valuable, chiefly because of their larger root system, in which might be stored from one-third to one-half the total nitrogen in the crop. By turning under a fair growth of one of these, from 100 to 150 pounds of nitrogen per acre may be added to the soil—an amount equivalent to that furnished by ten tons of ordinary barnyard manure.

Even with clover-growing, it is by no means easy to increase the nitrogen content rapidly. This was indicated by an experiment commenced in 1902, and continued to date. Every second year since 1902 the plot had been dug over and resown to clover. The annual waste of nitrogen through bacterial activity and other agencies had almost equalled the annual net gain. However, the gain during the nine years was sufficient to practically double the nitrogen in the upper four inches of soil. If the clover had been cut and fed, the manurial value of the residue, such as roots and decayed leaves, would have been almost half that above recorded. If, in addition, the manure made by feeding the harvested portion to live stock were also returned, the annual gain in fertility would be considerable.

* * *

The foregoing data emphasize the difficulties of increasing fertility to a high point, indicating some of the unavoidable wastes which have to be made good before increase can be secured, and strongly support the author's premise that:

A system of grain-growing which implies fallowing and no formation of sod, is very destructive of humus and nitrogen, and must in time impair the richest soils. The rational and economic upkeep of soil fertility demands the keeping of live stock for the production of manure—the most important natural source of humus and nitrogen for farming lands—and a proper rotation of crops which will periodically enrich the soil, as by the growth of a legume, in these valuable constituents.

Honest Scales and Traders.

Under the heading, "The Struggle for Honest Scales," the Country Gentleman says: "It is a shock to our confidence in human nature that one of the real difficulties of the day is to get scales that will weigh accurately. This kind of swindling has been so widespread that many manufacturers have been catering to short-weight customers. The mayor of Philadelphia has sent a message to the city council asking that \$15,000 be appropriated for the purchase of accurate scales, his plan being to sell them at cost to householders who can afford to buy them, and to lend them to those who are too poor to pay. The mayor's inspectors tell us that the variations of the scales in use are something like twenty-five per cent., and you may be sure that this variation is not in favor of the consumer. More than half of the scales were found to be wrong. Representatives of women's clubs of Minnesota at the capitol in St. Paul, studying the methods of the State Bureau, so that they might know how to get correct weights and measures when buying supplies, were told that it was impossible to find a small, accurately-adjusted scale for practical kitchen use."

In the judgment of a leading officer in the Standards Branch, Inland Revenue Department at Ottawa, expressed to "The Farmer's Advocate," the title of the foregoing should have been, "The Struggle for Honest Traders," as the whole question and agitation is a matter of dishonest weight, not dishonest scales. This is forcibly illustrated by the present "Short or Net Weight" war now hotly raging in England between the Inspectors of Weights and Measures of the Grocers' Association, owing to the increasing practice of including heavy "wrappers" in sales—some wrappers accounting for as much as $\frac{1}{4}$ to 1 ounce on the pound—such packages evading the Merchants'

Marks Act by bearing the words, "This package weighs 1 pound, including wrapper." From this cause, the loss in short weight, dishonest weight, to retail purchasers in the United Kingdom is estimated at something like \$2,000,000-odd per year on tea alone; but this has nothing to do with "dishonest scales."

It will be readily understood that this matter does not come within the province of the Weights and Measures Law of Canada, as Inspectors of Weights and Measures have not got "police powers" to prosecute under the common law for common fraud. The Canadian Government undertakes to protect the public from the introduction and sale of fraudulent machines, by having all new modifications submitted to the Standards Branch for examination and approval before a certificate is issued sanctioning their sale or use in the Dominion, and to guarantee the accuracy of those in use by periodical annual or biennial inspection, according to the nature of the scale, but there is no machine yet made to prevent dishonest weight or short measure, which is distinctly a quality of the trader, against which the public can seek redress under the common law. For their protection, the Canadian public can purchase small domestic scales at moderate prices, admitted by the Department exclusively for household purposes under special regulations. In this respect the Canadian Weights and Measures Law is ahead of other countries, inasmuch as such domestic scales must bear the Government stamp of verification, which insures an accuracy and quality sufficient for kitchen use.

In Canada, all scales must be inspected and stamped before being sold or taken for use, except postal scales not exceeding 4 pounds' capacity, but under the ruling of the Department of Justice, "Use For Trade" has to be proved to justify subsequent inspection. If then, for instance, a farmer claims that his scale is a domestic scale, used solely in connection with the internal economy of his farm, the Department would have to prove the contrary to enforce re-inspection. If any interested party came forward and lodged a complaint under Section 83 of the act, inspection would then be justified, but, without interested co-operation of the public, the words "Use For Trade" in the law must be allowed their interpretation. Ordinary trade scales are subjected to regular biennial inspection, spring scales to annual inspection.

No Horses or Men to Spare.

Although increased per diem allowances have been made, the muster-rolls at the annual military camps in Ontario are reported below what the authorities desired, and in some cases great difficulty was experienced in securing the necessary horses for cavalry purposes. Shrewd farmers, who know the value of good horse-flesh, are not likely to let their animals out to take the risks of camp usage for a couple of dollars per day. And when farmers are struggling, almost single-handed in many cases throughout the country, to keep up the absolutely necessary work on their farms, to further deplete the ranks of workers, to keep up military drill is regarded by many as a hardship. The town population may spare a few more for the ranks, but farming is now handicapped as never before by lack of capable men. How is the food of the people who mass in cities and towns to be produced if there is not the rural population to till the soil and properly care for the growing crops?

After careful observation, the physicians of Berlin, Germany, find that Sunday, or one day's rest in seven, is an essential condition to efficient and desirable life. By conjointly arranging their practice, they are securing that end. Moderns are discovering to be true what Moses indited some thousands of years ago.

A pre-requisite to satisfactory settlement in the wooded northern areas of Eastern Canada, such as New Ontario, is the early construction of post roads.

HORSES.

The day of the short, thick, chunky drafter is past. The horse that wins at present-day shows is the larger, rangier type, with large, wide feet, flat, clean bone, sloping pasterns, short, strong top, and a long, level croup; the horse that has a chest denoting good constitution, and that can move, strong, straight and true at the walk and trot. Such a horse is the one which should be chosen to be the sire of the colts, and such filly is one which should be the most profitable breeder.

The carriage horse without an abundance of action is no carriage horse at all. Of course, the animal must have suitable conformation, or he cannot show fine action, but many typey horses cannot act high and true. Much depends upon training, and much upon shoeing. Look well to these factors before taking the horse into the show-ring, for the horse that cannot pick up in front, flex his hocks well, show a reasonable speed with a long, true stride, stands a poor chance of being a winner.

Judging from the crowds present and the enthusiasm manifested at the recent horse show at Galt, the popularity of the horse is not on the wane, but rather on the increase. Never before was so keen interest taken in the various classes, and competition was closer than in former years. The automobile has a big contract on hand before it can fill the place of the loping saddle horse, the handsome hunter, the high-going carriage horse, the lifey roadster, the clean-limbed, general-purpose horse, or the massive drafter, in the eye of the lover of horses.

Few, indeed, are the displays of animal intelligence to equal that contained in a long line of Hunters, Hackneys, Roadsters or Thoroughbreds facing the judges at an exhibition. Keen and alert, right up on their fettle all the time, ready, willing, and ever anxious to show their paces or to take the hurdle, understanding every word and every movement of their rider or driver. What is more to be admired? The horse still has a place, and always will have as long as human nature continues to get out of him that satisfaction which cannot be got elsewhere.

Horse Don'ts.

Many "don'ts" for horsemen are published from time to time, but few touch more important points than the following list by C. L. Barnes, which was recently published in the Agricultural Gazette, but is good enough to bear repetition almost indefinitely. Drugging, bad shoeing practices and carelessness in feeding and watering, form the basis of the list:

- Don't water a horse soon after feeding him grain.
- Don't feed a large quantity of hay to a horse that is afflicted with heaves.
- Don't change the grain ration abruptly.
- Don't keep idle horses on full feed of grain.
- Don't turn horses to a straw stack and expect them to get a living, keep in condition, and with certainty escape impaction of the bowels.
- Don't fail to have your horses' teeth examined once a year.
- Don't feed your horses when they are tired, especially grain.
- Don't wait until your mare is almost dead, at the time of foaling, before calling a veterinarian.
- Don't administer medicine to the horse, or any other animal, through the nose; nature never intended it that way.
- Don't administer any drug to an animal until you are familiar with its action and the exact condition of your patient.
- Don't be continually dosing your horse; keep him well by proper care.
- Don't clip your horse and leave him unprotected while not in motion.
- Don't leave the shoes on a horse longer than five or six weeks without re-setting.
- Don't allow the blacksmith to rasp the hoof wall and otherwise mutilate the foot in shoeing.
- Don't leave the grain bin where the horse can get to it should he become untied.
- Don't allow the horse to stand in a draft.
- Don't wait until the horse's shoulders are sore before properly fitting the collar.
- Don't put chains behind the horses to keep them from backing out of the stall.
- Don't allow the horse to drink too much water at one time.
- Don't feed irregularly.
- Don't stand the horse on an inclined plank floor.

Education Counts.

Nothing detracts more from the horse's chances of winning in a show-ring than lack of education. The "green" horse is often turned down simply because he cannot show his paces to advantage before the judge. The light types of horses are more likely to suffer from this cause than the heavier classes, owing to the fact that action counts perhaps more with them, but it applies to all kinds of horses. How often a hunter is seen to quit at the first wall, or falter, make an awkward effort, and either knock the wall down or strike it slightly, all of which are accounted against his chances of winning the red or the blue. Many a roadster has lost not on conformation or appointments, but on behavior. Some do not drive up to the bit, others become nervous and next to unmanageable, and in either such condition show very little of their true gait. It is not infrequently noticed that a carriage horse of fine conformation—one which looks like a real winner—is placed very low in the list, and the people who have not seen him move cannot understand the placing. It requires considerable time and patience to teach a horse manners, and to teach him to show his best in competition. A carriage horse which cannot show high, true, straight and strong action has little chance of winning championships. The agricultural or heavy-draft animal which, when shown on the line, has to be pulled or dragged along, or when in the team has to be frequently brought into position by the use of the whip, is not usually a winner. Actions and weeks and months spent in training are necessary if the horse is to be on his best behavior when he goes before the judge.

With the colts and all animals to be shown in the breeding classes, the first thing to do is to have them lead well at the walk, then at the trot. Talk to them, and get them to thoroughly understand what is expected of them long before the show takes place. It requires constant application—a short time daily, if possible. Once

few who otherwise could not be induced to enter the show-ring. But it is just as important that the amateur entry be well trained as it is that the championship entry be educated. No horse should receive the injustice of being thrust into the "hot" company of the present-day show-ring untrained. The thing is to start right by giving the horse the best possible education before taking him into the prize-ring, and he will not be so likely to prove a disappointment.

With a colt or spirited animal—and most winners are more or less spirited—thoroughness in the training is essential. At the exhibition there is always more to excite the animal than there is around his own stable or in his own pasture paddock, where most of his training is done. Where at all possible, it is well to get him somewhat accustomed to the hustle and glare of the arena or the ring. The more training he has in this respect the better, and every little effort in improving his manners is certain to add to his chances of carrying off the honors for which he competes. Start now to prepare the green horses for the fall exhibitions, by devoting any spare time to their training. Give all the best chance possible.

LIVE STOCK.

Advice on Wool Handling.

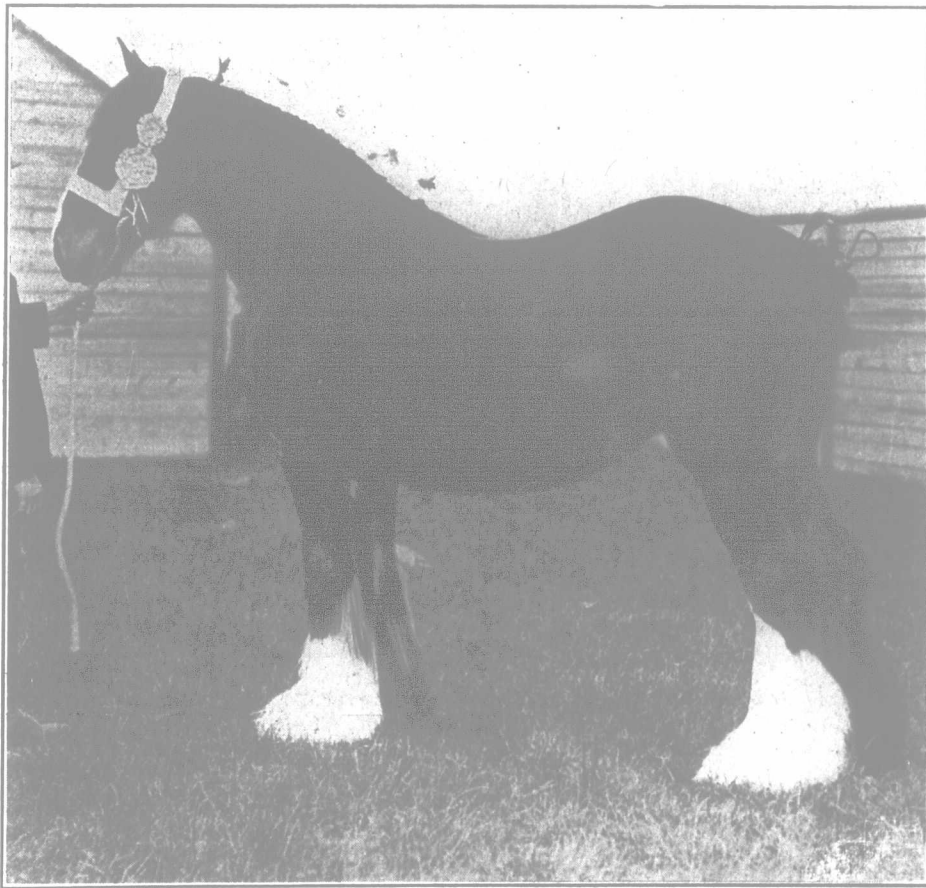
While it is generally conceded that Old Country methods of handling sheep and wool are far in advance of those practiced in this country, it would seem that it requires persistent lecturing even there to keep up the production of the best; at least, this is what one would gather from reading the report, in the Scottish Farmer, of a lecture by George Dun, before the East Lothian Farmers' Club. According to Mr. Dun, wool is bought in Scotland either at sales or from dealers. Bought at sales, it comes to the manufacturer just in the condition in which it leaves the grower. Some dealers class their wool, while others sell either classed or in the clip, and others seldom class at all. The wool of yearlings and ewes is now classed separately, which makes it possible for the manufacturer to get the class he wishes. In some places the wool is not classed, but goes straight to the sorter. What is wanted in wools for combing is good quality, long-stapled wools, and any farmer who feeds his sheep well can supply this want by breeding good skinned sheep and caring for them well. For carding wools, a short staple is necessary, and it is obtained from the Cheviot in districts where these sheep are fed lightly.

Mr. Dun does not believe that sorting can be profitably done on the farms where sheep are not kept in very large numbers. The main ob-

jection he gives to farmers sorting their own wool is the poor way in which it is done. It must be done well if it is to be of any value, and the supply of capable wool-sorters is limited, so farmers should confine themselves to treating and selling their wool, not to sorting.

When washing is done, it should be thoroughly done. Once through the pool, which is often practiced, Mr. Dunn believes to be insufficient, as it only wets the fleece, and a second dip is necessary to remove the dirt. Many farmers do not thoroughly wash their wool, and so it weighs better, but the dealers are getting on to the practice and examine the wool, discounting that which has not been made clean by a second trip through the washing pool.

Taking the operation of clipping as next in order, Mr. Dun advised doing it about ten days after washing. If delayed longer, the yolk mixes again, and results in wool equal only to badly-washed wool. Clipping should be done on boards or sheets, where there is no danger of grass,



Halstead Duchess.

Winner of first prize and gold medal at Bath and West Show. Owned by Lord Rothschild.

trained, the animal never forgets it. The large breeders and importers rarely show an untrained horse. It is the young breeder that generally suffers in the show-ring from this cause. Busy with the farm work, he neglects to train his colt properly, takes it to the show, and is very often beaten by a well-trained opponent in the hands of an expert horseman. With some, failure on a few occasions drives them from the ring; others keep up the fight, train their animals, and eventually get into the win column.

If shows are to be a great success, the amateur breeder must be encouraged, but it is difficult to help those who will not put forth an effort to help themselves. It is sometimes discouraging for the young breeder to place his entry alongside of those of the wealthy importer; but if his horse has the type, conformation and quality, and can win over the importer's entry, how much greater is his success, and how much it adds to the value of his animal. It is well that amateur classes are provided at exhibitions. They draw out a

straw or other dirt getting into the wool. All such material damages the fleece and detracts from its value, as it must be picked out in the sorting, or, where this is impossible, the pieces often cause breakages in the yarn. All tags, etc., should be carefully removed. In rolling up the fleece, the sides should be folded in, and it should be rolled from the breach, and a rope made from the neck. Broken bits of wool should never be put up in the fleece. All such pieces should be kept and sold by themselves. Rolling should be neatly done, so as to show the buyer the best part of the fleece.

Wool-buyers prefer a good white wool, and, to get this, the breeder must avoid poor dips. Many a good clip has been spoiled by using unsatisfactory dips.

Next, the marking was dealt with. Marking with tar is the almost universal method in Scotland, and Mr. Dun thought matters might be improved. When the fleece is sorted, these tar marks must be cut out, which means a loss of time and wool. The brands could well be made smaller.

It is necessary, in breeding, to use good-skinned rams and ewes with a desirable fleece, and thus breed good wool into the flock. Well-put-up wools always command a higher price and a readier sale than poor wool badly put up. It is a matter for the grower to take into consideration, if the price of his wool is to be increased.

Feeding Young Calves.

We raise yearly twelve or fourteen calves, and, being scarce of help, we are forced to economize time, so we contrived a speedy means of feeding, the result being that the otherwise difficult task is now a genuine pleasure, and our work is completed in a few minutes.

We make butter, and use a cream separator. Quite convenient to our milk house is a small pasture field, where in spring we turn our young calves. In it we have a set of bales built in the fence, this latter being removed as far as the bales extend. They are made like ordinary cow bales to open back and shut, and when closed are held in place by a peg placed in a hole just behind the standard or stanchion. Each calf has a pail of its own placed in front in a sort of square or round box to keep it from being tipped over.

After separating, we carry warm milk (without any of the foam) and divide it in the pails, which are of galvanized iron and are always left in their places during the feeding season. After a lesson or two, the calves rush into their places (just room in each for one). We close their bale until they have taken their meal; all is finished in a few seconds, and we do not even have to steady the pail. We simply wait to free them, the only real work being to carry the milk.

Years ago we used to feed each calf separately, so now we fully appreciate our improved method. Leeds Co., Ont. SUNBEAM.

THE FARM.

Nitrogen-enrichment of Soils.

In a paper recently read before the Royal Society of Canada a summarized account was given of the experiments that had been conducted by the Chemical Division of the Experimental Farms since 1889, in the very important matter of the nitrogen-enrichment of soils.*

The first fact brought forward was that rich, productive soils are characterized by a high nitrogen and humus content. Evidence was adduced to show the correctness of this statement, not only from the examination of cultivated soils of first quality and established high productiveness, but from many analyses of soils of the virgin prairie of the North-western Provinces, so widely recognized for their wonderful fertility.

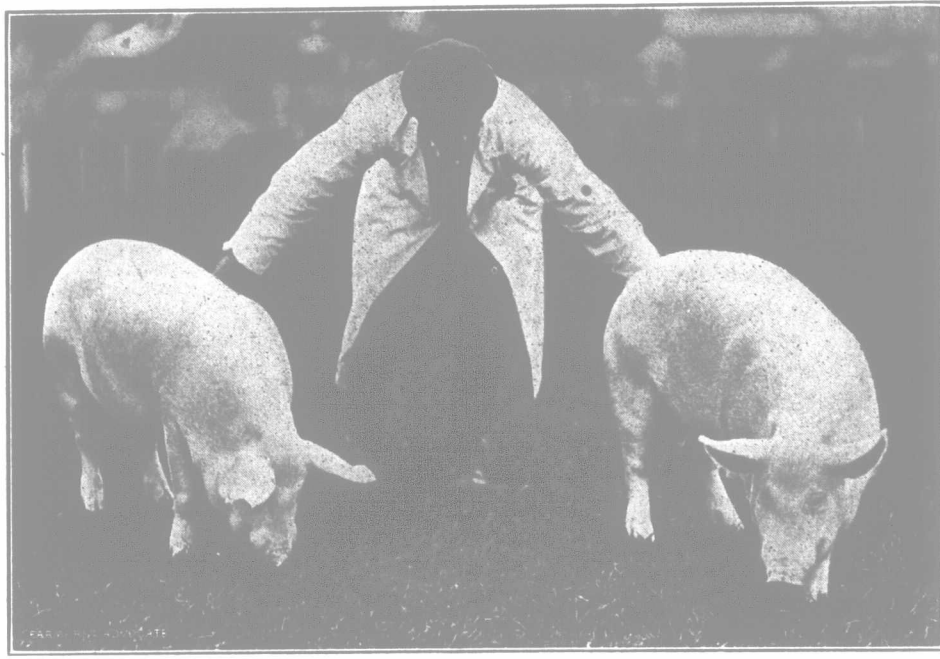
On the other hand, soils naturally poor, and those impoverished by irrational farming, have been found to be low in nitrogen and humus-forming material. The semi-decomposed vegetable matter of the soil is the natural store-house of its nitrogen, and experimental proof had been obtained that demonstrated beyond question that humus-forming material must be constantly added to cultivated soils if their nitrogen content and their productiveness were to be maintained. The grain-growing of the West, which implies fallowing and no formation of sod, was very destructive of humus and nitrogen, and must in time seriously impair the richest soils. The rational and economic upkeep of soil fertility demands the keeping of stock for the production of manure—the most important natural source of humus and nitrogen for farming lands, and a proper rotation of crops; that is, one which will periodically enrich the

soil, as by the growth of a legume, in these valuable constituents.

Nitrogen is the dominant element among those furnished by the soil, and its amount and availability in a very large measure determine crop yield. The investigations discussed in this paper were instituted to learn the extent of the depletion of the soil's nitrogen by cropping and cultural operations, how far the legumes (clover, alfalfa, vetch, etc.) could be utilized on the farm for the increase of the soil's nitrogen and the furnishing of humus-forming material; and finally, to ascertain what the practical value might be of inoculation (a) with "cultures," and (b) with soil from fields bearing a leguminous crop, for the encouragement of the growth of these plants.

DEPLETION OF SOIL NITROGEN.

It was found, from the examination of a soil which had never received manure, and which had been under cultivation for 22 years, during which period it had borne six crops of wheat, four of barley and five of oats, with nine summer-fallows (bare) during the latter seventeen seasons, that the loss of nitrogen, to a depth of 8 inches, amounted to 2,206 pounds per acre. Of this, approximately 700 pounds had been removed in crops. This means that about 1,500 pounds per acre, or 68 per cent. of the total nitrogen lost, had been dissipated during this period through cultural operations, fallowing, etc. The soil experimented with was an exceedingly rich prairie soil in Saskatchewan. Very probably, it is a type of soil that would at first lose nitrogen more rapidly than one of a poorer quality, and, further, undoubtedly, fallowing is of all operations the most wasteful of soil fertility, but the figures are significant in showing there is an inevitable and heavy depletion of the soil's most valuable constituent, con-



Two of a Kind.

Pair of Large White gilts (young sows) owned by Lord Lucas, winners of first prize at Oxfordshire Show.

sequent upon the necessary tillage of the land. Our soils, then, must be constantly replenished with organic matter, if they are to be kept productive and profitable.

LEGUMES AS NITROGEN-ENRICHERS.

As is well known, the legumes are very rich in nitrogen, and as a part of this nitrogen, at least, is obtained from the atmosphere, they, as a class, are extremely valuable as manurial agents. The more important leguminous crops—clovers, alfalfa, vetches, peas, beans, etc., were grown and analyzed, the weight and nitrogen content of stem, leaves and roots, per acre, being determined. The clovers and alfalfa were found to be the most valuable, chiefly by reason of their larger root system, in which might be stored from one-third to one-half the total nitrogen in the crop. By the turning under of a fair growth of one of these crops, from 100 to 150 pounds of nitrogen may be added to the soil per acre, an amount equivalent to that furnished by an application of ten tons of ordinary barnyard manure.

The details of an interesting and valuable experiment were given, in which by analysis of the soil "before and after" the amount of nitrogen which had become part and parcel of the soil through the growth of clover, was determined. A plot of very light, sandy loam was first seeded with clover in 1902. Every second year from that date until the present time the plot had been dug over and reseeded. No manure at any time was used, but phosphoric acid and potash were furnished at the outset by a phosphate dressing of superphosphate and muriate of potash. The soil was sampled and analyzed six times during the experiment period. The data show that the nitrogen content had practically doubled in the nine

years, despite the losses from bacterial activity and other causes. The soil, to a depth of four inches, contained at the beginning of the experiment (1902), 533 pounds, and at the close (1911), 1,005 pounds per acre. If it is assumed that the growth of the clover had added annually nitrogen at the rate of 100 pounds per acre, it will be observed that the loss, due to oxidation, etc., during the experiment period, almost equalled the gain.

If the clover had been cut and fed, the manurial value of the residues (roots, decayed leaves, etc.) would have been almost one-half that here recorded. These data afford satisfactory evidence as to the value of a leguminous crop in the rotation, if soil fertility is to be economically maintained.

INOCULATION EXPERIMENTS.

The special value of the legumes as nitrogen enrichers is due to the fact that they are able to draw upon the free nitrogen of the atmosphere for a part of their supply. Thus, instead of impoverishing the soil's store, like all other crops, they add to it. The appropriation of free nitrogen does not take place directly, but is accomplished through the agency of certain bacteria present in the soil, and which attach themselves to the roots of the legume, with the result that nodules or tubercles are formed thereon, in which they reside. In some way, not as yet clearly understood, nitrogen compounds are formed within these nodules, and enter into the circulation of the host plant, to be built up into its tissues of root, stem and leaf. It is the nitrogen of the air existing in the interstices of the soil that these special nitrogen-fixing micro-organisms utilize, and this points to the desirability of a well-drained, well-aerated soil, if these bacteria are to perform

their beneficial function. Without the aid of these specific bacteria, the legumes cannot avail themselves of the free nitrogen of the air, but, like other crops, draw upon the nitrates of the soil for their nitrogenous food. Legumes, therefore, in the absence of these germs, are not nitrogen-enrichers of the soil. Are these nitrogen-fixing bacteria universally present in the arable soils of the Dominion? We cannot say that they are, though the examination of the roots of legumes collected in various parts of Canada has shown by the nodules thereon that these micro-organisms are widely distributed over the Dominion. Our observations have made very clear that failure to obtain a good catch and growth of clover is not always to be attributed to the absence of the necessary bacteria, but in many instances is due, rather, to an unfavorable mechanical condition of the soil, inadequate drainage, deficiency of moisture, acidity or sourness of the soil, denoting the need of lime, or, finally, to poor seed.

To furnish farmers with the means of introducing the nitrogen-fixing bacteria, where their absence is suspected, "cultures" of these bacteria have been prepared and put on the market. Their use is known as inoculation. During the last twenty years a considerable number of these cultures or preparations, from Germany, United States and home sources have been tried on the experimental farms and other points. Specific culture for clover, alfalfa, peas, beans, etc., have been experimented with. While in many instances they distinctly favored the growth of the legume, their action, on the whole, was more or less uncertain. The profitable employment of these preparations seems, therefore, problematical. All the failures met with were not attributed to lack of vitality in the cultures, but it was evident that their usefulness is much impaired by age, light and heat, and, unless prepared by a reputable firm or institution, and still fresh, satisfactory results can scarcely be looked for.

The employment, as an inoculating material of the soil from the surface of a field bearing a luxurious crop of the specific legume had given much better results than the use of cultures, and this method, where cost of transportation is not too great, will be found the most reliable for the general farmer. Notable instances of successful inoculation by this method, applying the soil at

*Description of Work towards the Nitrogen-enrichment of Soils, by F. H. T. SHEPHERD, M.A., F.R.C.S., Dominion Experimental Farms, Ottawa, and A. C. CHURCHMAN, M.A., May, 1912.

the rate of 100 to 300 pounds per acre, were recorded for alfalfa in the North-western Provinces. Inoculation, as has been said, is not generally necessary, but, where it is considered indispensable by reason of the absence of the nitrogen-assimilating bacteria, a supply of this bacteria-laden soil will, it is believed, prove more effective than the use of a culture.

Rotation and Fertility.

Editor "The Farmer's Advocate":

I am a subscriber to your valuable paper, and operate a 200-acre farm. If possible, I would like you to answer the following questions through your paper:

1. By a rotation of crops, say oats seeded with red clover and timothy first year, hay second year, with clover plowed under in the fall, followed by hoe crop, can the fertility of the soil be kept up from year to year, or is it necessary to top-dress the land with farmyard manure every three or four years? It takes a great deal of manure, especially when one uses it for orchard purposes, to have much for the land in general, so I would like to know if my land, which is a sandy and clay loam, will retain its productiveness by the clover being turned under as above, and no manure.

2. Do you consider peas an easy crop on the land, and would they be a suitable crop to follow clover, instead of a hoe crop, as we can only handle a limited amount of hoe crop every year? If peas would not be the best crop, what would you advise?
ROBERT FRASER.

Hastings Co., Ont.

The rotation above mentioned is a good one as far as it goes, yet it is questionable whether any rotation, without the addition of some form of fertilizer, either barnyard manure or artificial material, is sufficient to produce the most profitable crops of which the land is capable over a long period of years. The continuance of this rotation year after year over a long space of time would tend to deplete the land in potash and phosphates, and there would be a danger of it becoming "clover sick," a condition which would not permit of the growth of clover. "Clover sickness" is common in the Old Land, and there is no reason to believe that we are immune from it in Canada. There is a well-known difficulty in growing leguminous crops of the same kind frequently on the same soil. Many farmers have realized by experience the fallacy of attempting to grow certain of these crops year after year upon the same fields. Experiments carried on at Rothamstead Experiment Station show that there is no evidence that wheat or mangels have any injurious effect upon the soil which would unfit it for the renewed growth of the same crop, and the same is largely true of barley. This, of course, refers to these crops only when sufficient fertilizer is added. A successful crop of clover, according to these experiments, can only be produced after an interval of from three to seven years. Clover grown too frequently produces sickly plants which die away often completely in a severe winter. It is a significant fact that soils rich in lime, and well supplied with potash resist "clover sickness" to a marked degree. While a fungus (*Sclerotinia trifoliorum*) is found associated with the trouble, the fact remains that, in order to become subject to the attack, the plant must be constitutionally weakened by some cause, of which there is little doubt but that it is some agency, biological or otherwise, in the soil. Whatever the cause, "clover sickness" is a fact, and where a crop of clover was plowed down every third year, and no potash or phosphates added to the soil, there would be some danger of the land becoming unfitted for clover-growing.

All are agreed that a short rotation of crops tends to maintain high production from year to year, more than does longer rotation or no rotation at all. At Rothamstead, wheat has been grown on the same soil for sixty-eight successive years, and a plot which has had no fertilizer during that time still yields in the neighborhood of twelve bushels per acre. Where fertilizers were applied, no falling-off has been noticed, and the plots still yield about forty bushels per acre. The unmanured plot has shown a continuous and steady falling-off in yield from the beginning. In connection with the loss with rotation, another field at Rothamstead has been cropped under the following four-year rotation for sixty-four years, viz., roots, barley, clover hay, wheat. No fertilizer has been added to this soil. In 1908 the roots yielded .3 of a ton. In 1909, barley produced 10.0 bushels of grain and 11.3 cwt. of straw. In 1910, clover hay yielded only 17.4 cwt., and in 1911 the wheat gave 21.5 bushels of grain and 21.4 cwt. of straw. This shows that the different crops possess very different powers of development under adverse circumstances. The

wheat yield is still not bad, but is only a little over half that on fertilized soil growing wheat year after year. The barley yield is very low, but, like the wheat, is above that where no manure has been applied to the plot. Rotation is a benefit, but cannot be relied upon to take the place of fertilizers altogether. The clover crop is very light, as a result of the plants being weakly, owing to the short interval in the rotation, and the addition of no lime, potash or phosphates. The root crop is almost a total failure; the plants never bulb to any extent. The fact that the wheat follows the clover gives it a better chance, because the clover crop stores some nitrogen, which helps out very materially in the case of the wheat. The failure of the clover and roots shows lack of potash and phosphate material in the soil. Thus, for all crops a four-year rotation is not sufficient to maintain soil fertility without the addition of fertilizer.

In this question we have a three-year rotation, with a second cutting of clover plowed down. On a sandy-loam soil, as suggested, plowing in of a green leguminous crop is of great value to the soil. Green manuring adds a large amount of humus. Under such a system, if good crops of clover could be grown yearly, there would be very little danger of a lack of humus or nitrogen. There is, however, as previously hinted, a danger that the clover will gradually become more difficult to produce, and that the second crop will be of little value to plow down. Continuous green manuring, without the addition of lime, tends to acidify the soil, and an acid soil is never a good cropper. Then there is the danger of the clover killing out altogether, which would leave the soil for six years without the addition of any humus or fertilizer, except that of stubble of the cereal crops, and if during this year the soil were fallowed, further loss of nitrates would ensue. Warrington estimates that in a four-years' rotation of turnips, barley, clover and wheat, 73 pounds of nitrogen, 22 pounds of phosphoric acid, and 61 pounds of potash, are removed per acre. Estimating the

With regard to the growing of peas on a certain portion of the hoe-crop land, it is likely they would be as good a grain crop as any. This, however, would place a portion of the land at a considerable disadvantage from the standpoint of a cleaning crop.

Co-operate in Buying Spreaders.

Editor "The Farmer's Advocate":

The picture of the manure spreader at Weldwood, scattering the lime-stone is good. Speaking of the use and value of the spreader, I must say I can get double the value of my manure with the spreader that I can by hand.

I wanted to put two hundred pounds of fertilizer to the acre, and also eight loads of manure, on a piece of corn ground, so I put eight or ten inches of manure in the spreader, and then 25 pounds of fertilizer spread over the manure, then finished the load out with the manure. It worked fine. I then worked the manure and fertilizer in with the disk. The spreader for me, if it cost twice the money. I think one spreader could just as well serve three or four farmers as not, and we would not then feel the price so much. It is not like a mower or rake, as we all need these at about the same time. Let, say, six farmers get together and pay \$20 each and get a good spreader, and lessen the work—for spreading by hand is hard work—and raise larger crops of all kinds. Get a spreader and "The Farmer's Advocate," and be happy.
A. D.
Lincoln Co., Ont.

THE DAIRY.

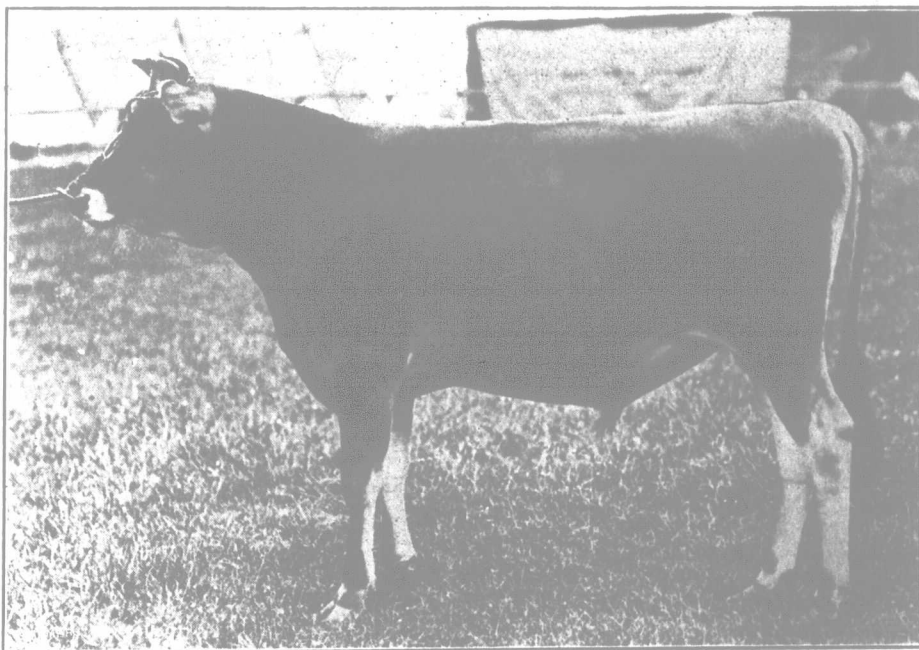
Milk Weighing by Rule.

Milk-weighing is one of the problems of the modern dairy farm. Approved spring-balance scales, properly adjusted, do the work well where individual cow records are kept, but in case of

factory patrons who wish to check the factory weights, something more is required. To equip the milk stand with a platform scale is troublesome, and a greater cost, perhaps, than the patron feels warranted in assuming. Naturally, this suggests the use of something "cheap and easy," but shortcuts are usually the reverse of satisfactory.

In case of approximating the weight of milk in vats, in order to add the proper quantity of rennet or coloring matter, cheesemakers sometimes judge by the eye or use a graduated piece of wood or other material which has been worked out ac-

ording to what has been actually weighed in at the receiving stand. "The Farmer's Advocate" learns that some parties, taking advantage of this idea, have turned out in large quantities what is styled a "milk scale," and that in one case in Eastern Ontario a couple of hundred of them were disposed of to one purchaser for \$100, of which \$50 was cash, and the remainder a note payable at one of the banks. Accompanying the so-called scales was the right to sell in a couple of townships, the retail price to be \$1.00 each. The article was a strip of wood about one inch wide and one-eighth inch thick, by less than 30 inches long, graduated on one side to represent from 30 pounds up to 240 pounds, presumably for 30-gallon cans, and on the other from 32 pounds up to 320 pounds, for a 40-gallon can. Then, to adjust the scale, because of the usual concave bottom of the cans, there is a small, movable bit of tin attached, with set screw at the lower end. The implement closely resembles the little yard sticks that are given away for advertising at the fall fairs. According to the literature distributed, all one has to do is to place the stick down to the bottom exactly in the center of cans, and wherever the milk comes up to "you have the correct number of pounds," and "guaranteed to give the best of satisfaction." Evidently, it would also have to be held exactly plumb, or there would be serious variations in the weight shown. It was not stated where the "scale" was made, except "in the States," but these were "selling like hot



A Champion Jersey.

Merry Mike, winner of first prize and championship at Oxfordshire Show, at Witney. Exhibited by Lord Rothschild.

yield of second-crop clover at one ton of dry hay per acre, which would be a high average for all years, the amount of nitrogen returned in plowing it down, according to Warrington, would be 49 pounds, potash 41.7 pounds, and phosphoric acid 12.45 pounds per acre. It is quite clear that in the four-year rotation the plowing down of a second crop of clover would not be sufficient to keep up the fertility. The main loss would be in potash and phosphates, which are greatly needed by the clover crop, and a lack of which, such as there would be under these conditions, would in a few years bring the clover yield down so small as to be of little value as a fertilizer.

This rotation, if phosphates and potash were added in sufficient quantity in the form of commercial fertilizers would be all right without barnyard manure, but without these the soil would become depleted in time. A light dressing of farmyard manure with the hoe crop would solve the problem, and why not purchase a little commercial fertilizer to mix with the farmyard manure for both the orchard and cropped land to make it go further on all, and insure better crops throughout. The three-year rotation is a good one, and if a little fertilizer is used, sufficient live stock to produce manure for all the soil about once in four years is essential. Rotations are valuable, and should always be followed, but they cannot accomplish everything. Manure is essentially a part of the best rotations.

cakes," or words to that effect. In addition to the profits on the original outfit, the party purchasing was to have permanent employment starting other agencies.

After considerable manipulation, it was found that, with one of the "scales" sent "The Farmer's Advocate," the weight of milk in a can could be roughly approximated, but there seemed to be a good deal of latitude for error, even, as a correspondent said, to within three or four pounds. We sent a description of the implement to the Inland Revenue Department at Ottawa, and the reply of the Weights and Measures Branch was that it could not be sold or taken into use without their approval, and that it had not been submitted.

One of the parties to the sale was an American. When the question was raised as to peddling the "sticks," the ridiculous claim was made that they had paid the Canadian Government last year \$27,000, but what for was not stated! However, it was said to be big enough to give them the right to sell and "stand between their agents and all harm." Persons cannot be too careful about making deals for unknown appliances with persons whom they do not know.

Lard and Coal Oil for Garget.

A Wisconsin reader contributes to Hoard's Dairyman the following sensible treatment, which we used recently on a mild case of garget in our own herd, with satisfactory outcome. He says: "To the many inquirers of your paper for a remedy for garget, I would say, if they will, as soon as the swelling appears in one quarter of the udder, take two tablespoonfuls of pure lard, melt same on stove, add the same amount of kerosene oil and bathe the quarter while warm, in twelve hours there will not be the slightest swelling left. In three or four days the quarter will be just as good as ever. I have practiced this for the last five years, with not a single failure."

POULTRY.

Turkeys.

When the autumn and winter festive season comes round and the price of turkeys soars almost out of reach of the average individual, one is led to wonder why more of this class of fowl are not produced. The turkey flocks of the country do not seem to increase anywhere in comparison with the growth of the population. This is, no doubt, due to a great extent to the fact that the inexperienced have difficulty in raising young turkeys, and a year or so of extensive loss causes them to give up this branch of the poultry industry for others which are more easily managed. To scores, yes hundreds, turkeys have been a disappointment. Too many have tried in vain to raise turkeys in a yard like that provided the ducks and geese. Others have killed their birds with supposed kindness by overfeeding, and others, again, by allowing the birds to become lousy, owing to filth or lack of precautions. While the mature turkeys are hardy, and withstand adverse conditions well, the young poults are very tender, and three things are absolutely essential to success, viz., free range, care in feeding to avoid overfeeding, and care to keep the birds free from lice. It has been found by experience that, to be successful year after year with an increasing number of turkeys, it is necessary to have almost unlimited range, for the land becomes in time "turkey sick"; that is, it is more difficult to raise the young poults on land that has been used exclusively for turkeys for some time than on land on which they have not been raised. Free range is one of the first requisites. Where turkeys are hatched by natural incubation, it is well to keep the hens cooped for from four to five weeks. A slatted-front coop should be used. This gives the young turkeys an opportunity to run out at will, and they will cover a sufficiently wide range for a few weeks. Care must, however, be taken to move the coop daily, or dead turkeys will result. Nothing is more fatal to young turkeys than roosting night after night on the same spot. This cooping system avoids loss from dampness, as the young birds will get into shelter of their own accord when it commences to rain. The young turkeys will cover a wider range each day, and so gradually become accustomed to covering a large area, which is in their best interests. If the weather is fine at the end of the four or five weeks, the hen may be let out with them, and they are then allowed absolute freedom. Do not shut the turkeys in close, ill-ventilated pens at night, as this is almost certain to prove fatal to a large proportion of the flock.

The feeding gives considerable room for choice. Curds from sour milk, boiled rice, oatmeal, corn meal, cracked wheat, are all good, and shorts mixed with skim milk make one of the best feeds up to four or five weeks of age. Stale bread, soaked in skim milk, forms one of the best "starters" for the turkeys, and may be fed ex-

clusively the first day, and gradually substituted by shorts, until, at the end of three days, milk-soaked shorts form the entire ration. Mix the shorts quite moist, but not sloppy, with the milk, and avoid all sour food. Keep the feeding troughs scrupulously clean. Allow all the skim milk and buttermilk the young birds will drink, and give fresh water in separate, clean dishes two or three times daily. Do not fail to clean all the dishes at each feeding or watering. About one-fifth of the daily feed should be green food, as onion tops and dandelion leaves cut fine and mixed with the shorts. Cleanliness and being careful not to feed more than the flock eats readily, are the main points in feeding. Many young turkeys die as a result of feed being left in their troughs until soured, when they return and consume it, causing fatal bowel trouble. Be very careful in changing feed and in making any other changes with the birds. Turkey hens make better mothers than hens, and it is well, when turkey eggs have been hatched under hens, to give the young to a turkey which has been set at the same time. When the turkey hen is allowed to run with the flock, it is almost proof against any loss from crows, which, if opportunity affords itself, will carry away large numbers.

Guarding against lice, the third precaution necessary, can best be accomplished by giving the old turkey a thorough dusting with insect powder two or three days before the eggs hatch, and by dusting the little turkeys from time to time. In dry weather, if dusting places are provided, the poults will dust themselves free of vermin. They must, however, be kept free from these pests, or poor success will result. Turkeys are profitable under proper care, but slipshod methods invariably lead to failure.

Keep the Chicks Growing.

Most chicks are well fed and cared for while their mothers are confined in coops, but when allowed to range, regular feeding is too often neglected, and, as a result, growth is retarded, and they become what is termed "stunted." It appears, from statistics furnished by produce dealers, that but 7 per cent. of the spring chicks marketed weigh four pounds December 1st. By this time, all the spring stock of the general-purpose breeds, like the Rocks, Wyandottes, Orpingtons and Reds, should average at least six pounds, live weight. Plymouth Rocks have been made to weigh seven pounds, dressed, at Thanksgiving time, by judicious feeding for growth and development while on range.

Little chicks, as soon as hatched and dry, should have litter in which to scratch, so that their toes may be straightened and strengthened. Fine, sharp sand or grit should be scattered in the litter for them to pick up, and fresh water should be supplied. After forty-eight hours their first feed should be given, consisting of a hard-boiled egg mashed up with a piece of stale bread moistened in sweet milk, but squeezed dry as possible. This should be fed five times daily, at intervals of two hours. Mixed grains of finely-cracked corn, wheat and pinhead oats may be scattered in the litter after the fourth day. The grain may also be fed in the little hoppers, but scratching must be encouraged by scattering some feed in the litter.

Johnny-cake, made of two parts corn meal and one part of bran, should be baked and fed frequently after the fourth day. "Dutch" or cottage cheese is fine to produce growth in chickens, and may be fed twice daily. It should not be cooked hard, however, but the pan of clabbered milk should be heated just enough to separate the whey, and then the soft cheese should be squeezed or pressed dry in a cloth. Sweet milk or sour may also be given, but fresh, pure water should be supplied at all times. When table scraps are fed, they may be mixed with bran or shorts and fed as a wet mash, but dry mashes will be more satisfactory.

When the chicks are weaned, at six or eight weeks, and are on range, their grain ration, with grit and charcoal, may be supplied in hoppers. The hoppers should be so placed or so constructed that the old fowls will not rob the chicks or drive them away. A small enclosure, made of lath and covered with wire, will admit the chicks and keep others from frightening or molesting the chicks while eating. Coops of ample space should be furnished, well ventilated, but secure from the depredation of night prowlers. The coops, utensils and surroundings should be kept scrupulously clean and sanitary, and the flock kept free of vermin.

Cracked corn is one of the best grain feeds for growing poultry. When new corn begins to harden, whether sweet or field corn, it may be "whittled" or shaved from the cob for the eager chicks. On range, they will secure bugs, worms, grasshoppers, and pick up grit and bone-making material.

When they have reached full height, all those intended for market should be put in fattening crates and fed ground feed and skim milk for three

weeks. An average of two pounds per head may be added to the weight of fowls, old and young, by this method, at a cost of about five cents per pound. By all means, keep the chicks growing, and fatten them before putting them on the market.—[N. E. Chapman, Poultryman, Extension Division, Minn. College of Agriculture.

Orchard, Poultry and Bees.

Poultry and bees are the natural allies of the orchardist in stimulating the productivity of his trees and improving the quality of their fruit.

A flock of chickens, domiciled in one or more movable "colony houses," will feed to a large extent on the insects and larvæ of insects found in the ground. Especially will they do this if the ground is cultivated—as it should be for the best results in orcharding. Many of these insects, at future stages of their existence, if not thus destroyed, may become agents of injury and destruction to trees and fruit. Chickens will also devour the wormy fruit which falls from the trees, thus again assisting in the destruction of the codling moth and some other pests. We read much of the valuable work done by insectivorous birds in general, in this direction. They certainly do enough to merit protection against the shot-gun, even though they do occasionally "take toll" of the fruit. But the faithful hen does the same work, and without taking any toll. The droppings of poultry also continually add a valuable fertilizer to the soil of the orchard, and their constant scratching helps contain the moisture-conserving "dust blanket." Meanwhile, if the feed they gather from the soil is properly supplemented with grain rations, their production of eggs is as large as anywhere else, and they can be fattened for the market with equal facility.

The presence or absence of bees in an orchard is often of sufficient importance to determine whether the fruit crop shall be large or small. Since practically all fruit blossoms are fructified by the passing of pollen from one flower to another, and since the wind too frequently fails perfectly to perform the office of pollen-bearer, great numbers of blossoms must remain unfertilized but for the friendly offices of the bees, which seldom skip a bloom as they pass from one to another in search of nectar. The pollen gathers on their wings and bodies to such an extent as often to change their color, and it is dropped on the waiting pistils of blossoms before unfertilized, thus insuring the "setting" of the fruit. A few hives of bees in the orchard not only make the services of the little creatures in this way far more reliable than when dependence is placed upon the visits of wanderers from distant colonies; but, if clover and other blooms are near to supply them with food after the fruit blossoms have performed their office, the hives may afford a profitable crop of honey.

The three in combination—orchard, poultry and bees—would seem to constitute, in trained hands, a very lucrative form of "intensive farming"—a form which makes the realization of a fair income from a few acres entirely possible. The "poultry," however, should not include ducks and geese. These fowls will occasionally snap up the bee, and the poison of its sting is fatal to them. With chickens, bees are safe company.—[C. R. Barns, Extension Division, Minnesota College of Agriculture.

Cool Water for the Fowls.

The following simple device, recently described in the Agricultural Gazette, is said to be a very satisfactory method of keeping water cool during the hot weather of summer. The device consists of a large stone bottle, with a bung-hole at the bottom. Seal top of bottle to keep air out. Get a bung a few inches long, bore a hole through center, insert a small piece of tube (bent so as to deliver water into a dish), then get a box, put in bottle at a small hole in box opposite bung, then pack tightly with sawdust, using paper or rags to keep sawdust from dropping out near bung. Nail lid on box. To fill, lay box with bung uphill; nail a piece of wood V-shape to cover dish.

If the experience of all those thousands of amateur poultry enthusiasts who enter the poultry industry, with high hopes and expensive stock, emerging with dilapidated equipment, bad eggs and a lone chicken or two, could be woven into a tale, it would make a rare story of pathos and humor. But the poultry papers are regularly turned from the presses fresh with inviting pages of reading and illustrations, beguiling new corps of beginners into the game. That is one part of the service the poultry paper renders the fancier. As the game goes on.

GARDEN  ORCHARD.

Topical Fruit Notes.

How many people are attracted to foreign parts through the illusion that "distant fields look green"! Climate, change or alluring profits may be the tempting features, and the advertising agents of railways and development companies play them to the full. The West has been the great stamping ground—California, in particular. How beautiful it all looks in the circular—the hills of poppy and shasta daisy, the romantic mission, the golden sunshine and golden fruit, and withal a fortune apparently for the gathering. But how different is the actual gathering! It is well shown by the Citrus Protective League of California in a circular issued by them and giving the detailed cost of producing and selling oranges in California. The average results show the cultural cost per season as \$136.06 per acre. The average yield was 157.6 packed boxes per acre. This makes the cultural cost per box 86.33 cents. The cost of picking, hauling and packing was 43.04 cents per box. Add to these transportation and marketing charges, and the average total cost is \$2.27 per box. The average sales price in the East ranges from \$1.75 per box for standard fruit to \$3.25 for fancy. Figure out the profits and find what the average orange-grower has per acre to pay interest and depreciation on an investment of \$1,500 per acre, and then figure out if we can't show better results right here in the fruit districts of Canada. And besides that, we have climate altogether as enjoyable for a healthy person, more beautiful landscapes, and just as romantic spots. We lack Western methods of advertising. Perhaps just as well!

Winter injury is continuing to show up in this district to a greater extent than at first anticipated, and many young peach and cherry trees have died after blossoming and leafing out. Here and there one-year-old vineyards have also suffered severely. The wet, cold weather during

blossoming time has shortened the crop considerably, especially with plums. A week or so ago there seemed to be a very heavy setting of plums, but most of these have now dropped off, and the crop in this district is reduced to one-quarter, or perhaps less. Peaches have set fairly well, and much better than expected. Pears will be a good crop, but cherries, both sour and sweet, very light. Strawberries are still showing in excellent shape, and raspberries, where they were not too badly frozen, will do fairly well. Currants and gooseberries could not look better. Grapes are now out in blossom, and at present stage give evidence of a full crop. Insect and fungous enemies are not showing up very much at present. The curculio is the principal offender, and it has done considerable damage to plums and cherries. It seems to me that most of our growers do not spray early enough for the curculio. They should get after it as soon as the blossoms fall, and not wait until the "jackets" fall off the plums. Then the damage is already done, and the object of applying a poisoned spray at the time the adult female is feeding to mature or develop its eggs is lost sight of.

The standardization of our fruit packages has been given some attention, but very little has been done, outside of apples, towards the standardization of our grades and packs. Even with our packages, there is considerable room for improvement. The veneer baskets, as used to-day, are too frail for fancy fruits or for long-distance shipment, and the introduction of boxes would be a big movement in the right direction. Some of our larger growers and co-operative societies have tried boxes, especially for pears and peaches, shipped to England, in which cases the boxes were an absolute necessity, but for local or even Western trade, the box is practically unknown. The advantage of the basket is its cheapness, supported by the fact that the growers have got into the "rut" of using them, and few or none care to experiment in the use of boxes, when it takes time and money to educate the public to a change, even for their own benefit. Many of them think

this a case where "pioneering don't pay," and it seems that it will be only through organized effort that a change for better packages, and then necessarily better grading and packing, will be made. Our efforts in the direction of grading and packing are nil, or, at the best, very primitive. The term "packing-house" with us is a misnomer. The orchard or vineyard is the generally-accepted packing-house, and our grading is left to nature. So that, when nature supplies big and little fruit on the same tree, it is all packed together—the big for the "grown-ups," and the little for the children. Under the present conditions of the industry, this haphazard method will prevail for some time yet, until we are forced by more severe competition from without or within to put our fruit up in better style, with some standardization in grade and pack. So long as we are well off, there is little incentive to change, even for the better, and necessity, as in all other things, is needed to spur on improvement. Give a grower good money for poor fruit, poorly packed in a cheap package, and the main incentive for improvement is gone. But when a premium is put on standardized fruit in grade, pack and package, then shall we be compelled to improve, and not until then. For money makes the dust fly these days.

Information from Lambton County fruit district shows a light setting of the tender fruits, but a promise of a big crop of apples. As in the Niagara district, considerable winter injury was done to fruit buds, especially peaches, and this, followed by unfavorable weather at blossoming time, caused the light setting of fruit. Right on the lake shore, near Forest, peaches came through the winter in good condition, and Walter Rawlings reports his different varieties to have set as follows: Queensboro, Crosby and Wellington, full; Alexander and Elberta, fair; Fitzgerald and Early Crawford, light; Champion, most badly hurt by winter. He also says they had their first strawberries on June 10th, which beats the Western end of Niagara district, at least, by a good margin. W. R. D.



A Northern Spy Orchard in Bloom.

Owned by Jas. McKay—An example of careful cultivation, as adopted by the members of the Wentworth Fruit-growers' Association, Lorne H. Carey, Manager.

A Monument to the McIntosh.

About 115 years ago, or in the year 1796 or 1797, John McIntosh, a U. E. Loyalist, who came to Canada from the States and settled in Matilda Township, Dundas Co., Ontario, discovered a promising young seedling apple tree which, among others selected for a small orchard, grew and produced a remarkably high-colored, rich-flavored fruit of very superior quality. As the tree gradually came into bearing, it attracted more attention, and its importance as a bearer of high-quality fruit was soon recognized. Allan McIntosh, son of John McIntosh, took up the work of propagating the species by grafting, and H. A. McIntosh carried it along extensively, from which source it has spread rapidly in recent years, and is now one of the most widely-grown and best-thought-of dessert apples in Canada. The originator of this apple gave to it his name, in combination with the high color of the fruit, and so the McIntosh Red came into existence.

The original tree stood near the end of the house on the McIntosh homestead until 1893, when fire destroyed the building and robbed the tree of most of its living branches. It continued to bear on the side farthest from the ruins of the house until 1908, when its productiveness ceased forever, and now only two decaying branches and a rapidly-decaying stump remain of the once flourishing tree which has been of so much value to orchardists.

A very fitting ceremony, and one unique in the history of Canada's fruit-growing, took place on the old McIntosh farm, Dundas, Ont., on Saturday, June 8th, when a monument of granite was unveiled to commemorate for all time the monument of wood which for so many years weathered the elements and bore its luscious fruit. By popular subscription, the people of Dundas County, aided by a \$50 grant from the Ontario Fruit-growers' Association, have erected a handsome monument to mark the site of the original tree. The monument is placed near the roadside, some thirty rods south of where the old stump stands. A crowd of some four hundred people witnessed the ceremony, and addresses were given in a grove of trees, now looking their best, and just a little west of the monument, by Andrew Broder, M. P.; J. Harkness, A. D. Harkness, A. McNeil, A. D. Campbell, and W. B. Roadhouse, Deputy Minister of Agriculture for Ontario.

It is well that the people of Dundas should so honor the McIntosh Red and its originator, for had Mr. McIntosh not discovered the tree, Canada would have been deprived of a fruit tree second to none in hardness and bearing proclivities, and a fruit which stands unexcelled as a dessert apple.

The fruit and vegetable growers of Leamington, Ont., district have revived the Erie Fruit Company for the purpose of making co-operative carlot shipments of their products, thus lessening the cost to consumers. The officers are: President, J. Atkins; Secretary, Geo. Ross; and Business Manager, E. E. Adams.

Cover Crops for the Orchard.

Next to spraying, the crying need of most Canadian apple orchards is cultivation and cover crops. During spring and early summer the tree requires an enormous amount of plant food to grow wood, leaves and fruit, leaving a balance to go towards the production of fruit buds for another season's crop. When the tree is improperly nourished, fruit buds for the next season are very scantily formed, and so the tree develops a habit of alternate bearing, which might be largely overcome by cultivation and manuring, accompanied by judicious thinning of the fruit in those seasons when the trees seem disposed to overbear. Not only do the trees need plant food, but, to convey that plantfood to their leaves and back to the parts to be nourished, there must be moisture and plenty of it. Cultivation conserves moisture, besides conducting indirectly to the liberation of plant food.

We had a remarkable illustration in 1910 of the value of orchard tillage. Two old orchards had just been taken over by us for demonstration purposes. One was plowed and cultivated, but the other was not secured in time to plow that season. The former made quite a nice growth of wood, and improved materially in condition and appearance, despite the trying period of summer frosts and drouth. The latter orchard, treated similarly in other respects, suffered disastrously. In fact, it went all to pieces. Fruit dropped, leaves shrivelled up and turned yellow, and limbs died by the hundred—to such an extent indeed, that, although many loads of prunings had been taken out during June, a big eighty loads more had to be removed in the spring of 1911 from the six or seven acres. There is no reasonable doubt in our mind but that, with proper cultivation, this orchard would have made more marked improvement than the one above referred to, which was in worse condition to begin with.

But, while cultivation of the apple orchard is ordinarily desirable during the spring and early summer, it should usually be discontinued about the last of June, and a cover crop sown, to be plowed down either late in fall or early winter. The cessation of tillage, followed by growth of the cover crop, tends to check wood-growth, thus making for maturity of the wood to withstand frost. It also shrivels the foliage to some extent, and lets sunlight in to color the fruit. No doubt it interferes somewhat with the development of size in the current season's crop, but color is perhaps more important than size.

The cover crop also takes up soluble plant food, some of which might otherwise go to waste. This is converted into humus, to be liberated for the benefit of the trees when the cover crop is ultimately plowed under and decomposed. If the cover crop is a leguminous one, it will also add nitrogen abstracted from the air. Nor is this all. A suitable cover crop helps to keep windfalls clean, to improve conditions for picking, and to protect the roots of the trees during the ensuing winter.

A great variety of crops may be chosen for the

purpose, and the use of a succession of different ones is to be recommended. For the most part, though, we advise the selection of legumes, and in our own experience have had best results from alfalfa, mammoth clover, hairy vetches and common red clover in about the order named. In three years' experience, alfalfa, sown at the rate of 25 to 30 pounds per acre, at various dates, from the end of June to the first of August, has not failed to produce a strong, even, vigorous growth, usually good even under the trees. Mammoth clover, sown last year about the last of June or first of July, also did splendidly, in spite of the worst summer drouth ever known in the county. Both crops came through the winter well, but the alfalfa made rather better growth under the trees. Red clover has done well, too, but not so well with us as the others. Special caution is necessary not to let the cover crop stand later than the spring after it is sown, particularly if it be alfalfa, else the cover crop will rob the trees of moisture and plant food, interfering with their growth and cropping, and killing some of them in time.

There is difference of opinion among experts as to the best date to sow the cover crop. The middle of July has been commonly advised, but, for our part, we have advanced it yearly, and are at present disposed to favor the latter part of June, mainly for the sake of insuring better color. Conditions, however, vary, and each orchard must be treated according to its needs.

THE FARM BULLETIN.

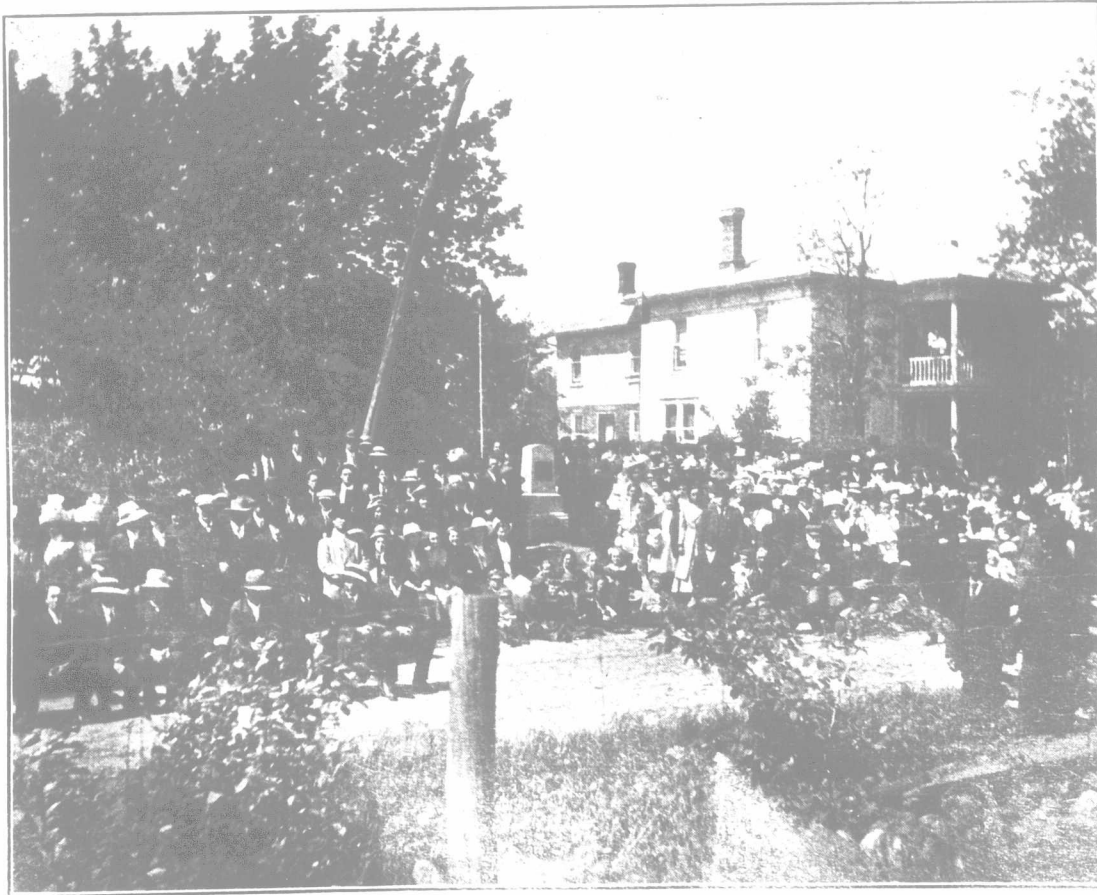
The Joys of Farming.

By Peter McArthur.

I have just had an hour of pure enjoyment, and that was worth while, even though the experience did not have a happy ending. The day being fine, and the work being well in hand, I went for a walk about the farm. I was delighted to find the oats doing so well, and had my first thrill when I realized that they were my oats. Then I went to look at the hay—my hay—and found that most of the field gives promise of a good crop. Then I looked at the corn—my corn—and saw that it is coming through the ground in fine style, even though the seed grain used was open to suspicion. The potatoes—my potatoes—are already through the ground, and the pasture—my pasture—is rich and plentiful. The garden—my (I mean our) garden—is already producing daily salads, and we shall have spinach in a few days. By the time I got back to the house my chest measurement was at least six inches greater than when I started out. Then I foolishly took up an account book—her account book—and began to look over the expenses—my expenses. Before I had added them up, I collapsed like a torn balloon and curled up like a codling worm that has sampled the arsenate. I hardly had enough energy left to heave a sigh. The item for labor was appalling. Then, there was seed grain and tools, and a score of other things that I didn't count on when beginning the work. It wouldn't do to show that expense account to people who are thinking of coming back to the land, or they would never come, and the farmers would lose a chance of profitably unloading farrow cows and wind-broken horses on them when they are stocking up. I wish that account book hadn't been lying in so prominent a place. It spoiled the day's enjoyment.

When I am inclined to be despondent about other things, I go and look at the orchard. Thanks to the Department of Agriculture, it is not crushed under an expense account, and the prospects are good for a bumper crop. The little apples—my little apples—are swelling rapidly, and beginning to look like ready money. But I find that on some branches not a single blossom was fertilized. This makes me think that there are a few things that the orchardist will have to do before he will get the fullest results. Depending on insects to do the fertilizing seems very haphazard, if not unscientific. I wonder how it would do to collect the pollen from the blossoms with a vacuum cleaner, and then put it where it is needed with a sand-blast? It might be fussy work, but it shouldn't be much worse than spraying. I shall ask Mr. Clement about it the next time I see him. I am hopeful that, if I keep on investigating in the proper spirit, I may yet hit on something that will be a real contribution to the science of farming. The trouble so far has been that the scientists have all my suggestions as jokes. But never say that. A box will come.

Let us now consider a little letter such as Brower would describe as being "From any farmer to his son, who is the manager of a branch of a bank, and that many people think that the bank is a safe place where they meet are having a



Honor to the Apple.

The unveiling of the monument to the name of the McIntosh Red and its originator.

gilded time. All wrong. The gilded times belong to the men higher up; in short, to the men who are in a position to use the banks. The employees are about the most poorly-paid men in the country, considering their responsibilities:

"My Dear Son:

"The work being kind of slack just now, after the seeding, I thought I would write you a few lines to let you know that we are all well, and hoping that you are enjoying the same great blessing. Your mother's rheumatics has been worse this spring, and, as it went to her hands, I have had to feed the skim-milk calves myself, and they are just about the most stiff-necked lot I ever straddled. Another year I don't think I'll raise calves—unless your mother is better.

"The spring crops are looking pretty good, all except the late oats that didn't go in until after the rains. A lot of the corn that went in first rotted in the ground, and I hear a lot of complaints about the seed corn that some folks bought from a man who lectured at the Farmers' Institute and took orders for his seed corn on the side. It ain't turning out well, and folks are complaining. I guess that is about all the news.

"What I wanted to write you about mostly is this banking business you are in. It doesn't look as good to me as it did when we scripped to put you through school and get you started as a bank clerk. Of course, what fooled us was the way that Sir Philabeg McSporrnan got on. When I knew him as a boy, his folks was so poor that when we were frying meat they would come and lean over the fence to smell it, and now they tell me he is like the English duke who had to have a butler and two footmen to serve him with a soft-boiled egg for breakfast. Little Philly got along all right, and when he offered to get you a place in a bank for old sake's sake, I thought our fortunes was made. I didn't know then that banking is just like most everything else in this world, and that it is the still pig that gets the swill. You seemed to take quite naturally to banking clothes and banking hours, but your name came out too often 'among those present' in the society column and never in the financial column, 'among those back of the merger.' Your mother and I felt you were doing fine when you played in the tennis finals with the aristocratic Wilderming girls, when we really should have been jacking you up to get you in on the ground floor with Senator Redneck, who, I understand, is still walking around to save funeral expenses, or with Sir Jingo McBores who has been hobbling about with one foot in the grave and one hand in the treasury for more years than I can remember. As I look back at it now, I can see our mistake. We started you right, but we didn't point you straight. Sir Philabeg had gone right by nature. I can remember, when he was a freckle-faced boy, if there was a barn-raising or anything like that, he would squeeze in among the men and get a seat at the first table, whether he had been helping the winning side or not. And it looks to me as if he hadn't changed much. Whenever there is a big deal of any kind going on, he is there with his little porringer and yelling for another helping. When he got his nice new title, I thought he would kind of settle down and take things easy, but not Sir Philabeg. He is all the time biting off more than he can chew, and then managing to chew it. Still, I like Sir Philabeg, and I think if he hooked an apple out of my orchard he would give me the core if I asked for it, the same as when we were boys.

"I have been having you on my mind a good deal this spring, William, and the way things are looking I am coming to think that perhaps you had better come home and work the old farm, now that your mother and I are getting too old. Being the manager of a branch bank doesn't seem to be such very great shakes after all. It is not as if you were a real banker, instead of just being a clerk under orders from the head office. You have to make all the show of being a real banker, without being one, and it doesn't seem worth while. Next to the hotel-keeper, people expect you to be the most liberal giver when they are collecting for charities or for some public affair, and with the salary you get and the style you have to live in, you can't do it comfortably. It took you fifteen years to get past the marrying limit, and as you haven't got much farther yet, I think you had better give up. Banking is not for the likes of you. You are satisfied to work for a bank, instead of being like Sir Philabeg and making the banks work for you, and it is beginning to look to me as if even his game might be spoiled in the near future. The man doing statute labor gets his ear closer to the ground than the financier who goes through the country in a touring car, stopping only in towns where they sell wine. I have had my ear pretty close to the ground lately, and I should not be surprised if the day of big profits from the use of the people's money in banks is about over. The plain people are not going to stand for it much longer. They are going to see to it that banking will be regulated in such a way that every man can get a square deal, and if they do that, banking will not

be any more profitable than the grocery business, or even farming. There is no earthly reason why it should be, and people are beginning to see it. If that should happen, I think you would be better on the old farm than anywhere else. Better think it over, and then come home for a visit and have a talk.

"Last winter was a hard one on us farmers, because feed was so scarce. When we turned the young cattle out this spring we had to tie knots in their tails to keep them from going through the picket fence around the garden, and when I took the horses to the blacksmith to be shod, he told me I should soon have a team, as I already had up the frames. Still, farming has its good points.

Your mother joins me in sending love to you and your wife. She says she would knit you some socks, only she can't get wool carded in the country any more. I guess this will be about all this time. Your loving Father."

Haymaking at the Ontario Agricultural College.

Editor "The Farmer's Advocate":

Our system of making hay varies considerably with the conditions under which we are working. Some years hay will cure much more quickly than others, owing to differences in weather conditions or in the rankness of the growth. We seldom cut red clover until it is in full bloom. In favorable weather it is usually cut one day, and drawn to the barn the following day. If it is very rank and full of sap, we use the hay tedder the first day, and the second day, as soon as the dew is off, we rake it with the side-delivery rake and draw during the afternoon. If the crop is not very heavy, or if it is a little late in the season, we do not find it necessary to use the tedder, though in such cases we usually rake some of it with the side-delivery rake during the afternoon of the first day, and the remainder, which was cut last, in the forenoon of the second day. In the latter part of the clover harvest we find that, if we use the tedder, the hay is apt to be a little too dry and brittle the second day.

Timothy is handled in much the same way, though it is very seldom, indeed, that we use the tedder upon timothy, and during the latter part of haying the timothy which is cut in the morning is frequently drawn before the evening of the same day.

As to alfalfa, we have tried different methods, and have been only fairly successful in handling it without first cocking it. The alfalfa requires to be cut in fairly early bloom, in order to secure a good second-growth. As a result, the crop is extremely full of moisture and difficult to cure, without losing a considerable quantity of the finer leaves. In the case of the rankest alfalfa, it will probably require about two days to cure without cocking, the hay being drawn to the barn the second day after it is cut. For alfalfa, the tedder is an important implement, because in hot weather the alfalfa should be kept stirred at frequent intervals to prevent the top layer from being burnt with the sun, while the lower layer remains perfectly green. We usually commenced tedding, therefore, a few hours after the crop has been cut, especially if the weather is very hot and dry, and we can ted it twice the first day, we think it is an improvement, or possibly go over it with the tedder once, and use the side-delivery rake in the afternoon, so as not to unduly expose it to the dew at night. The next day, if the hay seems very green, the windrows may be tedded out and gone over with the tedder possibly twice during the day. Late in the afternoon it may be raked in the windrows again with the side-delivery rake, and the following day, under ordinary circumstances, it is sufficient to turn the windrows over by means of the side-delivery rake, and draw later in the day. Some years we have been able to draw the alfalfa to the barn late in the afternoon of the second day, but it is rarely that we are able to do so.

We usually employ a six-foot mower. The side-delivery rake will not take the place of a dump-rake. For gathering rakings or for raking hay that is to be put into cocks, the dump rake is necessary. It is also necessary for raking the grain stubble. Where a person uses a hay loader, however, the side-delivery rake is a great advantage; in fact, I might say that I would not buy a hay loader without a side-delivery rake. As previously explained, in some cases the side-delivery rake will take the place of the tedder in curing hay, but in the case of heavy, sappy red clover or alfalfa, the tedder is a very important implement in handling the hay to best advantage.

When we are drawing hay to the barn with three or four teams, two men are put in the field. One of them helps the teamster build the load, and the other walks and drives the team. The next load, the two men change places, so that these two men are alternately helping build the load or driving the team, and consequently it is not quite so hard on the men. Of course, if a

person were drawing with only one or two teams, it would not be necessary to put two men in the field. Before we used the hay loader, we had to put four men in the field to keep the same number of teams going, and we could not store as much hay in a day as we do with the hay loader, to say nothing of time spent in cocking. I am not sure that we make as good hay as we used to make when we put it in cocks, but we can make very good hay, and I feel satisfied that any slight loss in quality is more than compensated in the saving of labor. We have never used the loader for hay that has once been put in cocks.

Practically all our hay is stored in lofts, so that we cannot do very much in the way of distributing forkfuls. It is an advantage to have the loft somewhat narrow. Up to the present we have always used the horse fork, though many prefer slings. When using a loader, it is an advantage not to be bothered with slings in the field, and with a good horse the hay can be unloaded very quickly. G. E. DAY.

Ontario Agricultural College.

The Loader in Haymaking.

Editor "The Farmer's Advocate":

The system which we have followed for years in making clover hay is to cut it when it is well out in blossom, cutting in the forenoon, and following up with the tedder. The next day, as soon as the dew is nicely dried off, we rake with side-delivery rake, and in about two hours commence to haul. Sometimes, if the crop is heavier, we use the tedder oftener. Timothy is handled about the same way—cut when the second blossom has dropped, and if the crop is not very heavy we draw it in the same day. It is loaded with hay loader.

As for alfalfa, I usually cut one day and coil the next, if weather is suitable, cutting when it would be about half out in blossom.

A six-foot mower is used.

I prefer the side-delivery rake. In the first place, it leaves a much better row to pick up with the loader, and, in raking up, you are loosening your hay up, which helps in drying it. In gathering up the rakings, we usually use the dump rake, but have used side-delivery, starting at the outside of the field and raking to the center.

We do not find that the side-delivery rake can take the place of the tedder in curing hay. The disadvantage would be in putting the grass together too soon. As I said before, we follow the mower with the tedder.

The loader saves labor in handling hay, being much quicker than by hand. Two men can put on a load in half the time that it could be forked on. I think, probably, as good hay can be made; that is, taking ordinary conditions and weather. I have used the loader for coiled hay, by turning it out, and it worked all right.

I use both fork and slings—the fork in the bottom, where I can move it about to all parts of mow; slings when the mow gets up. The hay is easier spread over the mow. I consider that I save the time of one man and do the work much more quickly by unloading with the horse.

Wellington Co., Ont.

W. T. WHALE.

A Fat and Casein Test.

The Dairy Department at the Ontario Agricultural College is working upon a test which, it is hoped, will determine the aggregate percentage of butter-fat and casein in milk. This was announced by Prof. H. H. Dean, speaking last week in Woodstock, Ont., at a public meeting held under the auspices of the Oxford County Holstein Club. We already have the Babcock test for fat and the Hart test for casein, but, to make two separate tests of each cheese-factory patron's milk involves considerable labor and expense. As both fat and casein enter into the composition of cheese, a test which would accurately determine the percentage of both would, in Prof. Dean's opinion, be quite an advantage to the cheese industry.

The meeting mentioned above, held on the evening before the Holstein sale, was to have been addressed by E. H. Dollar, of New York State, who, however, had to wire inability to attend, but a good meeting was held in his absence, addressed by parliamentarians and Prof. Dean. In a neat speech, which was a model of its kind for conciseness and brevity, Col. T. R. Mayberry, M. P. P., commended the Club for its good offices in advertising the County of Oxford, whose farmers seem to have been too busy of late years to pay very much attention to publicity. He believed the milk production of South Oxford alone amounted to two million dollars' worth a year, or a thousand dollars' worth of milk to every hundred-acre farm.

R. E. Haegar, the American auctioneer, noted a great growth in popularity of the auction-sale idea during the last six or seven years, commended the sales as a means of interesting beginners, and urged consignors in general not to use the auction sales as clearing-houses, but to consign good straight cattle such as they need not be ashamed of.

THE KING AND THE COW.

Ever ready with a classical, scriptural or some allegorical reference, Prof. Dean illustrated his remarks with a crayon sketch of the ancient Egyptian goddess, Hathor, conceived at least two thousand years B. C. This symbolized the kings of Egypt as sucking a cow while young, and standing under the cow's head when mature—nourished by the cow in youth, protected by her in maturity. This, he thought, was a fine representation of the relation between the human and the bovine races. This ancient goddess, recently discovered, was found covered with gold spots shaped like clover leaves, symbolizing a further triumvirate relationship—cows, clover and gold. Prof. Dean promises us a book on this great subject some day. Proceeding, he observed the words "cow" and "capital" are derived from the same root, adding that a man's cows are a better measure of his worth than his dollars in the bank. To the system of advanced registry and official testing adopted years ago by the Holstein-Friesian breeders, he attributed the marked progress and present enviable position of the breed in Canada. In his capacity as overseer of official testing, he had supervised tests in over fifty herds in Western Ontario already this year, most of them in Oxford County. The owners of these herds pay expenses of the men doing the work, one from the county having paid out \$140 for this purpose to the official test officer already during 1912. In no other county of Ontario are there so many good cows, with such excellent records. Then followed an instructive discourse on milk, its composition, nature and care. Some of these notes we may reproduce next week.

Work and Needs of the Ontario Agricultural College.

Leafy June, when all the plant kingdom reaches the zenith of its summer glory, is chosen as the month in which to show the rural population of Ontario the beauties and the uses of the Ontario Agricultural College and Experimental Farm at Guelph. The Farmers' Institute excursions for 1912 are now in full swing, and great crowds are conducted daily to places of greatest interest. While things look much the same each year, there is always something fresh to be learned, and the person who makes it a point to gain some new information which will be of value to him on his farm at home is never disappointed. The unobservant, disinterested person may get away without learning anything, but those who attend with a purpose are never turned away empty. As an outing combining pleasure and education, a trip to the Agricultural College is hard to duplicate. President G. C. Creelman is at present holidaying in Europe, and G. E. Day leaves for England shortly in quest of dairy Shorthorn cattle. Prof. C. A. Zavitz has charge, in the absence of the president.

No part of the work at the College is of more interest and more direct value to the country's agriculture than the experimental plots. Fifty acres are now devoted to this work alone, and twenty-five more will be added next spring. Although not as forward as they are some years of earlier seasons, they are looking well, indeed, and some of the best object lessons in variety, time of sowing, kind of seed, etc., are in evidence.

Few people realize what the number of plots and the extent of the work means. There are over five miles of wide drives between sections of plots, and upwards of twenty-two miles of foot-paths around the plots. Imagine, if you can, what this experimenting means to the crops of our country.

The oat plots are looking fine, especially the plots of O. A. C. No. 72, which now heads the list in yield per acre. This new oat originated from a selection of an extremely promising head of the Siberian variety, and results have proven the selection valuable.

Barley looks well, but shows a little frost injury, the tips of the leaves being a trifle yellow. Prof. Zavitz does not anticipate any appreciable falling off in yield on this account. The plots of O. A. C. No. 21 and Mandscheuri give promise of holding their place at the top of the list.

Winter wheat shows considerable evidence of the injury of the past winter, but many of the plots look very well, especially a few of Dawson's Golden Claff. A wheat known as the Virginia Miracle, introduced in Virginia some five or six years ago, did not show too promising, having been badly winter-killed. Many of the tender varieties were hard hit, but some of the hybrids are doing fine, and some promising new varieties are likely to result.

Winter rye came through in fine condition, and is looking its best, standing five feet high, and all out in head, proving its hardiness and ability to withstand all kinds of weather.

A few of the more uncommon crops are worthy of note. Winter barley and winter emmer almost entirely succumbed to the cold weather, indicating that these crops are very risky for the farmer, and generally not profitable. Spring emmer is looking well. This crop has an advantage in

late or wet seasons, in that it does well with comparatively late sowing, and gives good yields under favorable conditions.

More space is required to grow the seed for the Experimental Union plots throughout Ontario, and the extra twenty-five acres to be added to the plots at the College will help in this direction. This latter work is gradually growing. For instance, it has been found that nitrate of soda is the most economical single fertilizer ingredient to use with mangels, and 160 pounds of this per acre increased the yield 200 bushels; or, in other words, the increase was made at an average cost of approximately two cents per bushel. At the present time, fertilizer experiments are being carried on with potatoes. Four different kinds of complete fertilizer are used, and 30 experiments with each, or 120 experiments in all, are under way on as many different farms in the Province. They are sown in lots of 320 pounds, 640 pounds, and 960 pounds, respectively, per acre, and check plots with no fertilizer and with barnyard manure, are also used. The results of this work should be very valuable and far-reaching.

Perhaps the most striking feature in the plots is the alfalfa experiments. The best object-lesson with regard to the kind of seed sown is here illustrated. Four-year-old plots of the variegated variety are standing fine, while the common variety under the same conditions has almost entirely disappeared. So important is this to growers at present that it will be made the subject of a special illustrated article, to appear in our issue of June 27th. The Southern and Western grown seed which is so often sold in this country is not as hardy as the variegated variety, and the plots prove the point.

It has been stated, and it is still believed that, in sections where the land is extremely heavy clay underdrainage is not satisfactory. In order to demonstrate with this class of soil, the Physical Department is endeavoring to secure some of this land in some of the outlying counties, and intend to put in a thorough system of underdrains, and carefully note the result. The drainage staff now consists of fourteen men, who will spend the entire summer taking the levels and mapping out the drains for farmers, at no cost other than travelling expenses.

The experimental and other work carried on at the O. A. C. is of more value than many are inclined to believe, and it was a good move that the Government recently made in adding more land to extend operations. It is proposed, during this summer, to erect a new dining hall, a new dairy stable, and a new agronomy building. All of these and others are urgently needed. Classes at the College increase in numbers yearly. Class rooms and laboratories in several of the buildings are inadequate to cope with the growing demands upon space. The new dining-room will leave more space for dormitories, and every student should have the privilege of residence life for an important part of his education is gained from contact with his fellows outside of class hours. Up-to-date stables are a necessity, and the new dairy barn is needed at once. A new agronomy building will relieve considerable congestion. At the present time there is no proper agronomy classroom. The veterinary and live-stock classroom is situated in the agronomy building. The bacteriological laboratories and classroom are there, also, and the agricultural museum, besides several offices. The short-course classes in seed-judging are taken to the manual-training classroom in the machinery hall, thus encroaching on other professors' space, and the horticultural building, being without a short-course classroom, these students use the agricultural museum. The new building will solve this difficulty. The bacteriological classroom and laboratories can be enlarged, and also the veterinary and live-stock classroom, giving sufficient space in these departments, while the new building will accommodate all classes, regular and short-course in agronomy, without having to use the manual-training department's space. These buildings are urgently needed, and should be completed before the next college term opens, the middle of September. At present writing, not a sod has been turned, and unless a move is soon made, another college term, with larger classes than ever before, will have to be out in under existing conditions.

The college officials and professors should not be hampered by inadequate accommodation either for their stock or students. We look for the best possible work to be done, but it cannot be accomplished unless facilities are provided to cope with the demands. The Government cannot be too strongly urged to hasten these buildings to completion and to look over some of the others, been in touch with the needs, and place the men in charge in a position to do their best work.

It is reported that during the month of May 6,000 mortgages were registered in one American city, mostly on homes for the purchase of automobiles. This is going some—either towards the jail or the county poor-house.

Ontario's Expert Agriculturists in Session.

The number of young men engaged in the furtherance of the agricultural calling directly connected with the Agricultural Department of the Provincial Legislature, and located each in a different county, has now reached to thirty, many of whom have one or two assistants. All these men are studying conditions in their own particular locality, are working along approved lines which are certain to be a benefit to the farming community in which they live and operate, and are always open for new suggestions in connection with the problem of carrying the "better agriculture" to the average farmer. The scheme is not one in which the representative has the sole interest, although some seem to think it is. It is rather meant to be one of mutual co-operation of the entire community and the men in charge of the offices for the uplift of Ontario's agriculture. These men are trained men, and their business is to assist in organizing agricultural effort. In order to further their schemes and to get suggestions from each other, they gathered in annual meeting at their alma mater, the O. A. C., Guelph, the beginning of last week, to discuss ways and means.

C. F. Bailey, B. S. A., the recently-appointed Assistant Deputy Minister of Agriculture, who has supervision over the district representative work, occupied the chair, and several good sessions were held.

Nearly one-half the counties in the Province are now supplied with these men, who have offices in a central town, where they are pleased to discuss all matters pertaining to agriculture in all of its phases with all and sundry. These men need the help of the people. Very little can be accomplished unless the people are ready and willing to be approached on the various subjects, and are at the same time ready to ask for help. More new offices are being opened this year than in any one previous year, and we would urge upon our readers situated in counties where these offices are being or have been opened up to make use of them and the men in charge. If there is anything in keeping these men in the counties—and there is—get it out of them, and give them an opportunity to prove their worth. The time is not far distant, according to the hopes of the Department, when an office will be open in every county in the Province. With Ontario's counties all supplied with graduates of the world's most famous agricultural college to show the way, and these men working together—for they must work together if the greatest success is to follow—the greatest system of agricultural development should eventually be conceived, born and carried into full maturity in this the grandest old Province that the world has ever seen. Our men are made of the right kind of material, and, given a chance, they will win. They must use their own initiative, must rely on themselves, work together, and gradually evolve the system we hope to see.

Every meeting these men attend together brings the work in each county more nearly identical. In time a Provincial-wide agricultural organization should come from the county efforts. The start has been made. Farmers' clubs have been organized, and in some counties, Waterloo, for example, which has some thirteen of these, all told, a central organization or club, known as the County Board of Agriculture, has been formed. Two delegates from each club, in convention in November, elect an executive of one representative of each township in the county. This makes a thorough organization to look after the needs in the county. Think what it would mean if every district were so organized, and there is no reason why it cannot be; and then a Provincial central board over the entire organization. New and up-to-date methods of weed eradication, seed selection, crop rotation, variety tests, cultivation, fertilization, feeding, and all problems of the farmer, would become more universal. We would have fewer poor farmers. It means work for the representative, and the opportunity is open for these men. If they grasp it, our agriculture may receive a great uplift; if they let it slip, they will miss the purpose for which they are destined.

OBJECT LESSONS.

The power of object lessons in lecture and Institute work was amply illustrated by Prof. W. H. Day in drainage work, and Prof. C. A. Zavitz in field crops. There is no better method of impressing anything on a person's mind than placing a practical, authentic illustration before his eyes. Seeing is believing. The simple illustration of difference in yield from different dates of seeding brought out the point clearly. Spring wheat gives its maximum yield at the earliest possible seeding after the land is ready to work, and for the next five weeks there is a gradual falling off in yield. Barley gives the same results, while there is little difference in the first two weeks of seeding oats. Sown later, the falling off in yield is gradual week after week, and peas give a

larger yield the second and third weeks of seeding than the first, but later seedings are not so profitable.

Alfalfa from drained and undrained soil is another good object-lesson, that from the drained land being strong and healthy, that from the undrained sickly, with a poor root development.

Potatoes also offer a means of demonstrating. The difference in the size of one-ounce and two-ounce sets is not realized by many growers. Sets cut in different sizes show clearly the difference. Two-ounce sets give better results than one-ounce sets, and this is usually the most economical size to use in planting. One set in a place, and it a fair size, is more productive than several small sets, because in small sets all the eyes develop, and many are weak; whereas, in larger sets, the weak eyes never develop, and all the strength is concentrated in the stronger shoots. The growing of fewer varieties should be recommended, and the three best general croppers Prof. Zavitz recommended as Empire State, Rural New Yorker No. 2, and Davies' Warrior.

FARMERS' INSTITUTE WORK.

Geo. A. Putnam, Director of Farmers' Institutes, urged the representatives to further the Institute as much as possible. There is still room for great work in this direction, and the efforts of the district agriculturist should be directed to aid this work. A scheme is under way to have three representatives in three adjoining or conveniently-situated counties hold a series of fifteen meetings, five in each of the three counties, and all the men be present at each meeting to discuss the different topics. This should prove a great help to the men themselves, as well as to those who attend, and the meetings should prove a success. They must be patronized, however, and every farmer in the district should make it a point to be present. There is something for all to learn.

Farmers' clubs are to get assistance, and at the present time there is a movement on foot in Waterloo Co. to reorganize the Farmers' Institute, giving the Farmers' Club the basis of the Institute work, thus handing most of the work over to the local farmers themselves. Short courses in stock-judging, seed judging, fruit and poultry are to be pushed in all counties, and some \$7,000 additional funds have been appropriated for this purpose, as well as \$4,000 for the advancement of Women's Institute work—a branch which offers many opportunities to the district representative.

School gardens and school fairs are to be pushed, in order to get the younger generation interested in agriculture. Where classes can be obtained, a regular course in agriculture is given in the High Schools and Collegiates, besides the short courses before mentioned. If the High-school curriculum permitted those taking agriculture in place of languages and algebra to matriculate, no doubt the classes would be much larger, but as it is, much good work is done in the collegiates, and the teaching will be continued.

Many points of use to the men engaged in the work were brought out in discussion. F. C. Hart, of Galt, was elected president for the ensuing year; D. McKenzie, Lindsay, Vice-President, and J. H. Hare, Whitby, Sec.-Treas.

Three Appointments at Ottawa.

Three appointments to the staff of the Dominion Experimental Farms are announced from Ottawa. Dr. O. M. Malte, a native of Southern Sweden, will fill the newly-created position of Dominion Agrostologist, combining some of the duties discharged by the former Dominion Agriculturist, Mr. Grisdale (now Director of Experimental Farms); the Dominion Cerealist, Dr. Saunders, and the Dominion Botanist, Mr. Gussow. Dr. Malte will devote his time more especially to the breeding and improvement of Canadian forage crops, paying special attention to grasses, clovers and alfalfa.

E. S. Archibald, B. A., B. S. A., whose birth-place was Yarmouth, N. S., leaves the position of Professor of Agriculture and Farm Superintendent at the Nova Scotia Agricultural College to become Dominion Animal Husbandman. As a student, Mr. Archibald received the first diploma granted by the Nova Scotia Agricultural College, and subsequently graduated from Guelph.

The work of supervising Field Husbandry operations at the various Dominion Experimental Farms and Stations will be carried on by O. C. White, B. S. A., of Ashburn, Ont., as Assistant Field Husbandman, Director J. H. Grisdale continuing for the present in the capacity of Acting Field Husbandman.

Copious rains at the close of last week, with several warmer days, caused a marked improvement in the prospects in East Middlesex, Ont., for pasture, spring grains, meadows, and vegetable crops. A great deal of fall wheat was well headed out at the beginning of this week.

The Woodstock Holstein Sale.

The big Holstein sale, held at Woodstock on Wednesday, June 12th, under the auspices of the Oxford District Holstein Breeders' Club, was an unqualified success, fully five hundred breeders and others interested being present. Bidding was spirited throughout, and the prices obtained were consistent with the quality and producing ability of the animals offered. The sale arrangements were perfect, and showed the master hand of the genial secretary, Geo. Rice, in the smooth and machine-like manner in which everything in connection with the sale was carried out. Promptly upon the "knock-down" of each lot, particulars were chalked up on a blackboard for the information of all. Following is a list of all selling for one hundred dollars and over:

FEMALES.

Consigned by A. E. Hulet, Norwich:
 Mysa; John Reder, West Flamboro... \$280
 Madolyn Duchess Canary; M. Currey, Toronto... 165
 Madolyn Duchess Abbeckerk; M. Currey... 130
 Madolyn Duchess De Kol; T. Harding, Welsford, N. B. ... 325
 Gaza Aconeth Calamity; M. Armstrong, Tillsonburg... 170
 Lizzie Pietje Favorite; R. Rettie, Norwich... 210
 Estelle 3rd; J. A. McKay, Oliver... 105
 Uniclay Abbeckerk; M. Currey, Toronto... 330
 Lady Tensen Pride; J. E. Waring, Zenda... 270
 Lady Banks; R. J. Kelly, Tillsonburg... 200
 Madora Lady De Kol; ... 130

Consigned by T. L. Dunkin, Norwich:
 Jewel Gerhen's Star; Ross McLeod, Paris... \$180
 Shadelawn Mechthilde Star; Ross McLeod... 100
 Shadelawn Bewunde; James McKay, Oliver... 190

Consigned by W. A. Hartley, Woodstock:
 Dusk Schuiling; S. Hartley, Woodstock... \$175
 Annie Pauline; J. N. Walton, Woodstock... 145
 Bonny Pride; E. W. Nesbitt, Woodstock... 135
 Fairies' Pride; W. Alchurch, Woodstock... 140

Consigned by F. E. Pettit, Burgessville:
 May Blossom Favorite; C. R. Smith, Salford... \$200
 Tidy Princess Favorite; H. H. Powell, Woodstock... 185
 Jewel Favorite 2nd; Geo. Rice, Tillsonburg... 110
 Lady Mercena Favorite; A. Dunn, Ingersoll... 120
 Queen Anne Favorite; M. Currey, Toronto... 120

Consigned by H. G. Benfield, Woodstock:
 Percilla Favorite; E. Howit, Jerseyville... \$185
 Cassy S.; J. Leusyler, Cassel... 150

Consigned by W. B. Poole, Salford:
 Lena Josephine De Kol 2nd; M. Currey... \$205
 Mary Nogi De Kol; H. G. Benfield, Woodstock... 150
 Doralice Myrtle De Kol; W. R. Cowing, Innerkip... 205
 Margery Princess; Fred Abbott, Harrietsville... 155
 Queen Grace Posch; F. Abbott... 120

Consigned by Hillview and Centreview Farms:
 Centre View's Anna 2nd; M. Currey... \$155
 Patsy Sixth's Pauline De Kol 2nd; Fred Abbott, Harrietsville... 135
 Centre View Gentle; C. Grimsley, Bedford Park... 230
 Aaltje Posch Duchess; J. H. Marshall, Simcoe... 125
 Ruby Jean; Geo. Rice... 150
 Calamity Duchess Posch 3rd; M. Currey... 150
 Daisy Verbell Burke; H. Smith, Woodstock... 115
 Lady Gerda Spot Cody; E. Howell... 125
 Viola Calamity Posch; T. J. Lammiman, Currie's... 135

Consigned by Bollert & Leusyler, Tavistock:
 Ethel Pietertje; W. Poole, Salford... \$100
 Nettie Dewdrop; F. Abbott, Harrietsville... 230

Consigned by R. J. Brookfield, Tillsonburg:
 Lily of Elmwood; F. Abbott... \$105

Consigned by Geo. Elliot, Tillsonburg:
 Baham's Pride; M. Currey... \$105
 Lady Belle Gretque; T. J. Lammiman... 115

Consigned by Cohoe Bros., New Durham:
 Della Mercena; E. C. Finch, Mapleton... \$125
 Bella Mercena; W. E. Thompson, Woodstock... 150

Consigned by M. L. Haley, Springford:
 Lady Annie De Kol; A. P. Gray, Britton... \$115

Consigned by W. E. Thompson, Woodstock:
 De Kol Starlight Lassie; John Lawson, Greenville... \$205
 Queen Netherland Togo; E. W. Nesbitt, Woodstock... 170

Consigned by M. McDowell, Oxford Centre:
 Princess Abbeckerk Posch; J. Reader, West Flamboro... \$210
 Peerspark Pauline De Kol; M. Currey... 100

Consigned by Henry Hartley, Norwich:
 Nellie Wood; J. H. Taylor & Son, Scotland... \$165

Consigned by Miles Hartley, Norwich:
 Ester D. De Kol; John Reader... \$200

Consigned by Ezekiel Tree, Woodstock:
 Ida De Kol Mechthilde; W. E. Thompson, Woodstock... \$140

MALES.

Consigned by A. E. Hulet, Norwich:
 Prince Abbeckerk Mercena; A. H. Teeples, Currie's... \$185
 Eighty head sold for \$10,810—an average of \$135.

W. A. Tackell's Holstein Dispersal

On Monday, June 10th, some 75 head of Holstein cattle, the property of W. A. Tackell, Holbrook, Ont., were dispersed by public auction, Col. Robert E. Haeger, Algonquin, Ill., and Wm. Pullin, Woodstock, wielding the hammer. The following is a list of all selling for \$100 or over:
 Duchland Sir Hengerveld Maplecroft... \$105
 Maiden's Beauty 2nd; J. C. Boeckh, Concord St. ... 150
 Annie Laurie of Zenda; T. Dunham... 105
 Lady May's Minto; A. Tattersall... 130
 Minnie Abbeckerk 2nd; Irwin Weir... 105
 Fairmead Queen De Kol; R. J. Kelly, Tillsonburg... 130
 Aaggie Fairmead; R. J. Kelly... 145
 Evangeline Beauty; C. Pearson, Holbrook... 100
 Baby Minto De Kol; J. C. Boeckh... 135
 Princess Holdeaby De Kol; W. Chambers, Salford... 130
 Lorena Teake; W. Chambers... 100
 Bessie Teake Spinks; W. Chambers... 130
 Calamity Teake; B. Shuttleworth, Ingersoll... 130
 Blanche Abbeckerk Teake; J. Smith, Brownsville... 100
 Netherland Teake; W. Chambers... 145
 Fairmead Teake; A. Hughes, Holbrook... 100
 Calamity Iosco's Mercedes Teake; T. Duffy, Zenda... 155
 Netherland Teake De Kol; W. Chambers... 130
 Helen De Kol Teake; T. Duffy... 145
 This herd contained many very young animals and a large number of calves. On the whole, prices were good; the 75 head, including very young calves, averaged over \$73, bringing, in all, over \$5,500.

Macdonald College Closing.

Twenty capable and well-trained young men, who had completed the four years' course at Macdonald College, recently received, at McGill University Convocation, Montreal, the degree of B. S. A. Robert Newton, on behalf of the class, gave the valedictory. At the commencement exercises of the class at Macdonald College, Ste. Anne De Bellevue, the graduates and friends were addressed by Hon. Martin Burrell, Dominion Minister of Agriculture. Principal F. C. Harrison was able to report the enrollment for the year 1911-12 as 478, of whom 182 were in agriculture, 148 in the school for teachers, and 128 in the school for household science. Notwithstanding the tempting calls for the services of graduates in other agricultural colleges and in Governmental Departments of Agriculture, five of the graduates are going farming on their own account, and two are to manage farms for others. The College team had won in the International Judging Contest at Chicago, and the staff had been called upon for important services in work of provincial and national scope. Dr. Sinclair paid a well-deserved tribute to the splendid record being made by the graduates of the school for teachers, and Miss Fisher to the work and attainments of the household-science graduates.

New Assistant Live Stock Director

It is understood that J. E. Rettie has been appointed to the position of Assistant Director of the Live-stock Branch for the Province of Ontario, formerly occupied by D. T. Elderkin. Mr. Rettie was born and raised on a farm near Fergus, Wellington Co., Ont. He has spent practically all his life on the farm, where his father is a breeder of Leicester sheep and Shorthorn cattle, and pays special attention to the feeding of beef cattle. He is well acquainted with conditions in the Province from a year's experience on drainage survey work with the Department of Physics of the O. A. C. He graduated with a B. S. A. degree from the latter institution this year. He is a good speaker and a good writer, and was president of the Union Literary Society during his final college year.

Under direction of Hon. W. H. Hearst, the Minister of Lands, Forests and Mines for Ontario, J. F. Whitson, of the Provincial Surveys Department, has been appointed to inaugurate the road construction campaign in New Ontario. Out of the \$5,000,000 expenditure approved by the Legislature, \$350,000 will be at once available for roadways. Mr. Whitson has practical knowledge of the north country.

Poultry Producers' Association Annual Meeting. Federal Aid to Ontario Agriculture.

The fourth annual meeting of the Poultry Producers' Association of Canada was held in the lecture-room of the public library, Ottawa, Tuesday, June 11th. President W. R. Graham, Professor of Poultry Husbandry at the O. A. C., Guelph, occupied the chair, and about forty-five members were present from every Province in the Dominion.

The following officers were elected: Patron, H. R. H. the Duke of Connaught; Honorary President, Hon. Martin Burrell; Hon. Vice-Presidents, Dr. J. W. Robertson, J. H. Grisdale; President, A. G. Gilbert, Central Experimental Farm, Ottawa; Past Presidents, A. P. Hillhouse, Bondville, Que.; Prof. W. R. Graham, O. A. C., Guelph; Vice-Presidents—J. R. Terry, Victoria, B. C.; A. W. Foley, Edmonton, Alberta; M. C. Herner, Manitoba Agricultural College, Winnipeg, Man.; W. A. Brown, Live-stock Department, Ottawa, Ont.; Victor Fortier, Central Experimental Farm, Ottawa; M. A. Jull, Macdonald College, Quebec; Rev. Brother Liguori, La Trappe, Que.; Seth Jones, Federicton, N. B.; J. P. Landry, Truro, N. S.; David Macdonald, Glenfinnan, P. E. I.; and W. A. Wilson, Dairy Commissioner, Regina, Alta. Executive—Messrs. George Robertson, Ottawa; A. A. Armstrong, Fergus, Ont.; Jas. Cochrane, Lennoxville, Que.; A. G. Taylor, Dewittville, Que.; G. R. Tylee, Rosemere, Que.; J. H. Dunfield, Kingsbury, Que.; J. H. Hare, Whitby, Ont.; I. C. Craig, Amherst, N. S.; P. Bradley, Ottawa, Ont.; F. C. Elford, Buffalo, N. Y.; S. K. Burdin, Ottawa, Ont.; John I. Brown, Montreal, Que.; Dr. Chas. H. Higgins, Ottawa, Ont.; K. Fiske, Florenceville, N. B.; H. B. Donovan, Toronto, Ont. Subsequently, at a meeting of the executive committee, George Robertson was appointed secretary-treasurer.

Among the chief speakers were Dr. Chas. H. Higgins, Dominion Pathologist; Dr. Barnes, Chief of Inspection under the Meat and Canned Foods Act; and J. H. Hare, B. S. A., District Representative in Ontario County, Ont.

Dr. Higgins discussed poultry diseases, particularly tuberculosis and white diarrhea. He was not altogether satisfied that the latter disease is not due to a physical abnormality, rather than to an organism. He had found muriatic acid fairly effective, though not infallible, in black-head in turkeys.

Dr. Barnes reviewed the working of the Meat and Canned Foods Act in regard to its enforcement in poultry canning.

J. H. Hare outlined the work as it is carried on in connection with egg circles in his district, showing how the stamped-egg system raised the price of eggs.

In view of the increased proportions of the poultry industry in Canada, resolutions asking the Government to place the Poultry Department at the Experimental Farms on the same basis as other Departments, and that a Dominion Poultry Husbandman be appointed to have supervision of poultry work at the Experimental Farms, and that at least 25 acres be set aside at each branch farm for a poultry department, were passed, along with others asking that poultry-disease investigation receive more consideration, particularly as to white diarrhea and black-head, and that a thorough system of education in the marketing of poultry and poultry products be inaugurated; and also that the Department provide the association with an annual appropriation similar to that given to the Seed-growers' Association. The association also asked that regulations governing the inspection of meats should be amended that only undrawn poultry may enter establishments or export trade under inspection, and that the World's Poultry Congress be asked to hold its next convention in Canada, in 1914.

Backward Season in Eastern Canada.

A bulletin of the Census and Statistics Office, Ottawa, issued June 14th, reports as follows:

Throughout the greater part of Canada, the spring this year has been cold, wet and backward. Continuous rains, especially in Nova Scotia, New Brunswick and Quebec, have greatly interfered with the spring seeding, and at the end of May large areas in these three Provinces, particularly on low-lying lands, were still unseeded. It is impossible, therefore, to base upon the data available complete estimates of the areas sown to this year's principal field crops. For the three Northwest Provinces, the areas are, as estimated on May 31st: Wheat, 9,122,000 acres; oats, 5,097,000 acres; and barley, 837,000 acres. The condition of these cereals in the Northwest Provinces is over 95 per cent. of the standard, except for fall wheat in Alberta, where it is 76.62 per cent. In Saskatchewan, the area under fall wheat is estimated at 53,000 acres, and its per cent. condition on May 31st was 93.28.

ARCH'D BLUE,
Chief Officer.

The following comprehensive and generally helpful plan has been agreed upon for the expenditure of the share (\$175,733) allotted to the Province of Ontario of the special Federal grant of \$500,000, authorized at the last session of the Dominion Parliament:

Field Husbandry Building, Ontario Agricultural College, \$40,000.—This will provide accommodation for the Department of Field Husbandry at the College. It will not only furnish much-needed room for the large and growing classes in long and short courses, but it will also give greatly-increased facilities for the work in seed improvement carried on in conjunction with 5,000 farmers throughout the Province. It will also give increased class accommodation.

District Representatives, \$21,000.—This will be used to pay the expenses and some of the salaries in connection with the work of new representatives, and also to extend the work and usefulness of representatives already appointed.

Poultry Work, \$10,000.—The object of this is to further develop the poultry industry throughout the Province. To do this, it is necessary to extend the equipment at the College to carry on breeding work on a larger scale, in order to supply both birds and eggs of the best breeds. Two extra men will also be employed, one to devote all his time to the work of the plant, and one to do extension work among District Representatives. In addition to providing for this assistance, this makes provision for a 2,000-egg incubator, a new poultry house, and improvements in the administration and teaching accommodation. It also includes a sum to make a study of handling eggs in Great Britain, Denmark, etc., for which purpose Prof. W. R. Graham left for England a few days ago. He will also represent Canada at a big International Poultry Conference in London in July.

Milking Shorthorns, \$12,500.—This provides for the purchase in England of a small herd of high-class milking Shorthorns, in order to test the possibilities of the development of a class of cattle in Ontario which will be profitable both for beef and milk production. They will be handled almost entirely at the Ontario Agricultural College. Prof. Geo. H. Day, head of the Animal Husbandry Department, will leave shortly for England to make the purchases.

Fruit Work, \$9,000.—This includes \$3,000 for the Ontario Horticultural Exhibition, in addition to the \$2,000 they are now receiving, \$3,000 for orchard competition, and \$3,000 for a market commissioner to develop markets for the sale of Ontario fruit in the West.

Short Courses, \$7,000.—This makes provision for a largely-increased number of short courses in stock-raising and seed improvement, which has proven so effective and popular. It also includes salary for a temporary seed specialist to be attached to the Institutes Branch, and to be engaged largely in this line of work.

Eastern Ontario Live-stock Building, \$10,000.—This is a contribution toward more accommodation for the Winter Fair held at Ottawa, to encourage the live-stock industry.

Special Grants for Agricultural Exhibition Buildings, \$10,000.—This includes \$5,000 for Fort William and Port Arthur, \$2,500 for London, and \$2,500 for Windsor.

Agricultural Work in Connection with Public Schools, Including School Gardens, Seed Displays, etc., \$10,000.—To interest the children of the primary schools in agricultural study and agricultural work, is one of the most important lines at the present time. This money is to assist in a propaganda of this nature now being carried out through the co-operation of the Department of Education and this Department.

Drainage Work, \$5,000.—This is to enable the Drainage staff at the Ontario Agricultural College to meet the demands for assistance in this line being received from all parts of the Province. It will also be used to demonstrate the possibilities of drainage in certain sections where it has been maintained drains would not work.

Live Stock in Northern Ontario, \$5,000.—This is to provide for placing male animals of various classes at different points in Northern Ontario, in order to establish a live-stock industry on proper basis.

Women's Institutes, \$3,500.—This is to provide for courses in Domestic Science in connection with 40 or 50 Institutes, along similar lines to those found successful last year in Haldimand County. These courses will include cooking, sewing, home-nursing, home sanitation, and decorations.

Dairy Survey, \$2,000.—This is to gather information as to the actual conditions of the dairy farms in a few counties in Eastern Ontario, and a few counties in Western Ontario. This information, it is felt, will be most useful in making future dairy work more effective.

Western Ontario Creamery Work, \$1,500.—This is to employ a competent man to give instruction

among those engaged in producing cream for creameries in Western Ontario.

Soil Survey, \$500.—This is to provide means for obtaining information as to the making of a soil survey of the Province, and testing the advisability of such a plan. The question of maintaining the fertility of the soil is one of the most important demanding consideration at the present time.

Miscellaneous Works, \$3,733.—This makes provision for incidental items which may be found desirable, such as experiments in vegetable-growing, assistance in live-stock shipments, encouraging alfalfa-growing, etc.

Ontario Veterinary College (additional land), \$25,000.—This provides for the purchase of the land necessary to finish out the block of the present L-shaped site, with a view to later extending the College to be a Dominion institution.

Great Sale of Live Stock at Ormstown, Que.

Two years ago the leading stock-breeders in the neighborhood of Ormstown, Que., among them being Dr. D. McEachran and Robert Ness, considered the advisability of holding an annual spring show and sale, and in 1910 and 1911 held a sale of horses, with a measure of success. This so encouraged the breeders that a sale of Holstein and Ayrshire cattle and horses was arranged for on a large scale. This took place in the new Stadium on June 14th, 1912. Altogether, 16 Holstein cows, 85 Ayrshires of all ages, and 7 Clydesdale mares, besides a number of teams and single horses, went under the hammer, so well wielded by auctioneer A. Philips, of Huntingdon, Quebec, whose reputation as a live-stock auctioneer has become widely known.

This sale was held in connection with the annual spring show, reported in another column; thus, the animals were in fine form. The horses and Holsteins were sold in the morning, and the Ayrshires in the afternoon.

The Clydesdale fillies offered were a choice lot, all personally selected in Scotland by Robert Ness, who selects only the best. They realized fair prices, and within the reach of the average farmer.

The Holsteins offered were all animals of high-class breeding and individuality, and should have realized higher prices. The number offered was rather small to attract many buyers.

The Ayrshire offering made a fine display, and buyers were present from many sections in the United States and Canada. When Mr. Fieldin, of the Brantford Farms, Groton, Conn., and P. Ryan, of Brewster, N. Y., both want the same Ayrshires, bidding goes lively. Mr. Ryan is an admirer of the Old Hall family, and secured several prizes of that breeding. Things got exciting when \$1,000 was offered for Old Hall Beauty 6th, and Ryan secured her at \$1,100. There was still greater excitement when the two-year-old heifers, Shewalton Mains Beauty 3rd and Redhills Nameless Charm were knocked off at \$1,100, also. Feilden secured Stockerton Primrose 3rd at \$1,000. Mrs. Erhardt, of Berlin, Vt., secured a prize in Threave Snowdrift; and John Sherwin, of Cleveland, Ohio, got a lot of choice heifers at reasonable figures. Canadian buyers were not outdone by breeders from across the line, and several choice animals went to breeders in the district. Ness, Gordon and McArthur know a snap when they see it, and animals coveted before the sale were secured by them, as well as others, among whom was Prof. Barton, of Macdonald College, who got several young females from heavy-producing stock. The average, on the whole, was good, 85 animals realizing \$27,785, an average of \$327 each. This is not quite so high an average as at the Hunter sale last year, when 117 animals realized \$40,215, an average of \$343.50 each. At the Hunter sale, cows averaged \$409, at Ormstown \$360; two-year-old heifers averaged \$371 at Hunter's, at Ormstown \$380. Yearlings realized \$345 each at Ormstown, as against \$243 at Hunter's. Fuller details next week.

Crop conditions in general on June 1st averaged for the United States slightly better (0.3 per cent.) than on same date last year, but moderately lower (1.7 per cent.) than the average June 1st condition of recent years. Crops, as a whole, are above average in the North Atlantic States (due mostly to favorable hay prospects), and in the far Western and North-western States, being particularly favorable in Oregon.

The newly-appointed representative for Middlesex County of the Ontario Department of Agriculture, Irvine B. Whale, B. S. A., has taken up his headquarters in London. A practical man, thoroughly qualified for the work, he will have, as he deserves, the cordial co-operation of all desiring the advancement of the farm interest of the county which he comes to serve.

GOSSIP.

THE ORMSTOWN SPRING SHOW.

On June 12th, 13th and 14th, a great district stock show and sale was held at Ormstown, Que. A little history of this show in the past is of interest, as well as the awards at this year's exhibition. The counties of Chateauguay, Beauharnois, and Huntingdon, situated in the St. Lawrence Valley, in the Province of Quebec, are noted for thrifty farmers, who till a most fertile soil, and whose homes and steadings are models of thrift, neatness and comfort. A visit to the stables or pastures proves that the farmers are true stockmen, as there may be seen the choicest specimens of horses, cattle, sheep, swine, and poultry. This district has thus become noted for its fine stock, through its enterprising stockmen exhibiting at leading exhibitions in Canada and the United States.

Three years ago, led by the veteran breeder, Dr. Duncan McEachran, the proprietor of Ormsby Grange, Ormstown, where high-class Clydesdales and Jerseys are bred, and Robert Ness, the noted importer of Clydesdales, of Howick, assisted by younger breeders of less reputation, organized and carried to a successful issue a spring show of horses, dairy cattle, sheep, swine, and poultry, held at Ormstown, Que. This was followed by a more successful show in May, 1911. This so encouraged the promoters that a company was formed, called The Beauharnois District Live-stock Association. The object of the company is to hold an annual spring show and sale. Having accomplished their object, these veterans withdrew in favor of their younger fellow breeders.

The provisional Board of Directors was changed at the last annual meeting to the following: Hon. President, Dr. Duncan McEachran; Hon. Vice-President, Robert Ness; President, Neil Sangster; Vice-President, Geo. E. Baird, Ormstown; Second Vice-President, D. J. Greig, Brysonville; R. R. Ness, Howick, and W. F. Stephen, Huntingdon, with J. George Bryson as Secretary-Treasurer. All more or less connected with live stock.

Former shows had been held in the skating rink, but the seating capacity was hardly adequate for the crowds which attended. It was recognized a larger arena must be erected, and with this in view a tract of land was purchased and the contract for a steel building, 125 feet by 260 feet, was let early in the season, but owing to delays in transportation and unfavorable weather, the Stadium was not in readiness for the show, therefore, temporary buildings and stalls had to be erected.

Cool and showery weather, and a late seeding, did not dampen the enthusiasm of the stockmen to make the show a success. The cream of the district's live stock was there. The show was well advertised, and drew breeders and stockmen in large numbers from many sections. The sale of cattle and horses on the 14th, was, in itself, a strong drawing card, as 150 head of choice stock were offered.

Ayrshire and Holstein cattle and Clydesdale horses made a strong showing. Dr. Duncan McEachran and Robert Ness & Sons made a big exhibit of imported Clydesdales. In some of the classes they were pressed hard by owners of individual animals of merit.

There were over 30 special prizes offered, largely by residents of the district, indicating the interest taken. The parade of teams brought out about fifty double and single rigs, from the heavy draft to the light carriage horse. Clydesdales were judged by Nelson Wagg, Claremont, Ont.

Undoubtedly these were the strong feature of the show in the horse line. Dr. D. McEachran, Robert Ness & Sons, McDougall Bros., S. McGerrigle, D. A. McCormick, Nussey Bros., D. J. Greig, and Taylor Bros., David Pringle and W. W. Pringle were among the leading exhibitors of three or more animals. A number exhibited one or two in their respective classes.

Aged stallions brought out quite an entry. First went to Sir Spencer, owned by R. Ness & Sons; second, Shelburne, owned by Dr. McEachran. These two horses were in fine form, and are hard to beat in any company. Third to Baron Archie, owned by S. McGerrigle, fourth, to Taylor Bros., on Baron Craigie.

In the three-year-old class, Ness' Royal

Cup was the winner. A fine lot of two-year-olds and yearlings were shown.

The mares, seven in number, were a strong class, as were the three-year-olds. Ness won 1st, 2nd and 3rd.

In the geld mares, Dr. McEachran won the red ribbon with Lithingow Lass, by Sir Everett. This is a mare of great substance and quality. She was champion in Scotland as a yearling, two, three, and four-year-old.

The registered teams were a grand lot, six pairs contesting for honors. First went to a pair of roans owned by Ness; second also to Ness on a pair of dark browns; third to Dr. McEachran on a fine pair of bays. The class under 2,800 lbs. brought out a big exhibit, eleven pairs showing, and they were a fine lot of farmers' teams. In the cart class, Ness won first and second on a roan and dark bay; Dr. McEachran, third.

There were many fine drafters competing in other classes, and for the specials that space will not allow us to enumerate. Light horses—Judge, E. Whitney, Plover, N. Y.

The exhibitors of driving, carriage and roadster horses, were too numerous to mention, but D. J. Greig, Alex. Steel, D. McCaig, J. D. Logan, W. G. Parham, D. A. McCormick, and Nussey Bros., were the leading exhibitors. The single driving classes contained some fifteen to twenty individual animals, giving the judges some heavy work. The saddle and pony classes were of interest to the ringsiders.

Ayrshires.

Ayrshires led in point of numbers in the cattle classes. R. R. Ness, Hector Gordon, J. W. Logan, Geo. Hay, Jas. McKell, P. D. McArthur, of Howick; Chas. Moe and J. P. Cavers, Ormstown; D. A. Macfarlane, Kelso; S. A. Cleland, Hemmingford; R. M. Howden, St. Louis, and McMillan & Leggat, Trout River, all had their quota on hand. In the classes were from ten to twenty animals, giving the Judge, Prof. H. Barton, of Macdonald College, some thought in making the awards.

The aged bull class was made up of six splendid animals, a credit to any show. First went to Logan's Netherhall Sir Douglass; second to Ness's Whitehall Sunrise; third, McMillan & Leggat, on Auchenbrain Good Gift; fourth, McFarlane, on Lessnescock Scottish Thistle.

Five animals were shown in the two-year-old class, and they were a promising lot. Fourteen yearlings made a grand showing. First went to Gordon; second and third to Ness. The junior and senior calf classes were well filled by lusty youngsters.

The aged cow class brought out ten matrons of merit. Ness won first on Palmerston Lady Mary, Logan second, on Miss Hall; third and fourth, Ness, on Oldball Beauty 6th, and Irene; fifth, McArthur, on Buttercup.

In the dry-cow class, twenty summer and fall calvers made a grand display. Ness scored first, second and third, and Logan fourth.

The three-year-olds closely contested the honors, as did the twenty two-year-olds. All the junior classes were well filled with heifers of promise.

Aged herds—First, Ness; second, Gordon; third, Logan; fourth, McMillan & Leggat; fifth, Macfarlane.

Young herds—First, Macfarlane; second, Cavers; third, Logan; fourth, McArthur.

Get of Sire—McMillan & Leggat, with Auchenbrain Good Gift.

P. Ryan's Silver Cup for best Ayrshire—Logan.

Ayrshire Specials.

G. E. Baird, three get of sire, McMillan & Leggat, with get of Auchenbrain Good Gift.

Dr. McCormick, cow and two of progeny, J. W. Logan.

Jas. P. Cavers, graded herd, R. R. Ness, H. Gordon.

P. Ryan, Brewister, N. Y., champion male or female, Logan.

Garland, Montreal, six Canadian-bred animals, Macfarlane, Logan.

Wm. Martin, Montreal, best exhibit, R. R. Ness, Gordon, Logan.

R. R. Ness, best four sired by an Ayrshire bull, D. T. Ness.

Holsteins.

The black and whites were well represented by choice animals from the herds of Neil Sangster, Ormstown; Alex. Yonnie, J. McRae, Thos. Rutherford, Tulloughgorum; J. J. Alexander, St.

Louis Station, and J. J. Tannahill, White's Station. This heavy-milking breed, like the Ayrshires, increasing in numbers in this fertile section of rich pasturage, no section in Canada is better adapted to produce good specimens of the breed than this. Neil Sangster has been and is the moving spirit of the breed, and has had a large measure of success, and his enthusiasm has been conveyed to his fellow farmers, and many of them are improving their herds by using Holstein bulls.

G. A. Brethern, Norwood, Ont., creditably made the awards.

Aged bulls—First went to Sangster's Pleasant Hill Korndyke Pontiac, a bull of great merit; second, Alexander.

Two-year-olds—Tannahill had the winner in a bull of fine type and substance.

Yearlings—1, Sangster; 2, Yonnie; 3, McRae; 4, A. Runben.

Senior bull calf—1, 3 and 4, Sangster; 2, McRae.

Junior bull—1, Alexander; 2, McRae, 3, Sangster; 4, Rutherford.

Aged cows—Sangster, 1, 2 and 3.

Three-year-old cows—1, Sangster; 2, Alexander; 3, Tannahill.

Dry cow—1, Sangster; 2 and 3, Yonnie; 4, Alexander.

Three-year-old heifer in milk—1, Sangster; 2, Tannahill; 3, Rutherford.

Two-year-old dry heifer—1, Sangster; 2, McRae; 3, Tannahill; 4, Alexander.

Senior yearling—1 and 2, Sangster; 3, Tannahill.

Junior yearling—1 and 3, McRae; 2, Sangster; 4, Tannahill.

Senior calf—1, 2 and 3, Sangster; 4, Alexander.

Junior calf—1 and 3, Sangster; 2, Tannahill; 4, Alexander.

Aged herd—1 and 3, Sangster; 2, Tannahill; 4, Alexander.

Young herd—1, Sangster; 2, McRae; 3, Tannahill.

G. E. Baird Special—Three get of sire, Sangster.

Dr. McCormick Special—Cow, two of progeny, Sangster.

Geo. Hogg Silver Cup for champion—Sangster.

Garland—Best six Canadian-bred, Sangster, Tannahill.

J. P. Cavers, graded herd—Sangster, Tannahill.

J. M. Darby and McLaughlin Carriage Co., best exhibit—Sangster, Tannahill, Alexander.

Neil Sangster, three specials—Best four grade cows sired by a Holstein bull, Alexander, Tannahill.

Sheep.

Judge, Gordon H. Wood, B. S. A., Huntingdon, Que.

The classes, while not large, containing from three to eight animals, were all made up of good specimens of their respective breeds.

Leicesters were shown by J. Purcell and David Pringle, Huntingdon; A. L. Cameron, Dewittville; Wm. Goodall, St. Louis; John Lang, Cairnsdale, who won in the order named.

Shropshires—Robert and Arthur Hunter, St. Etienne, and Jas. Donaldson, were the exhibitors.

Oxford Downs and Dorset Horned were shown by Robert Derr, Riverfield.

Swine.

Berkshires—W. S. Todd, Geo. Finlayson, Ormstown, and A. L. Cameron, exhibited.

Yorkshires—Geo. Finlayson, Wm. McNeil, Ormstown, and Taylor Bros., Dewittville.

Tanworths—Jas. Donaldson, and Geo. Hooker, Dewittville.

Duroc Jerseys—George and Thomas Hooker, and Jas. Donaldson.

There was a splendid exhibit of poultry. Taylor Bros. and John Graham being the leading exhibitors.

H. J. Davis, the well-known Shorthorn and Yorkshire breeder, of Woodstock, Ont., writes: "Have recently sold to James MacLean & Co., Huntingdon, Que., a very promising young bull, sired by Imp. Westward Ho, having for dam Beauty 18th, by Imp. Bapton Chancellor; also to the Douro Agricultural Society, a strong, red bull, sired by the same sire, his dam being a very fine Lavinia-bred cow, by Imp. Bapton Chancellor. To James Hodges, Jarvis, Ont., a growthy, red bull, sired by the Duthie-bred bull, Westward Ho, dam Imp. Duchess, by Prince of Fashion. All of these bulls were sold by mail orders, and have pleased their owners. Have two good ones ready for service on hand."

A very successful sale of Aberdeen-Angus cattle was that of Chas. Escher & Son and Escher & Ryan, at Botna, Iowa, on June 5th, when 64 head sold for an average of \$175.40. The top price for a bull was \$400, for the four-year-old, Eston of Eshott (imp.), and the highest for a female, \$355.

The English Guernsey Cattle Society Herdbook, Vol. 28, for 1912, contains the pedigrees of bulls from 2406 to 2549, and of cows from 8805 to 9262. It is admirably printed and illustrated, and the secretarial work is evidently well done by Robert F. Ling, 12 Hanover Square, London, W.

An interesting sale of Shorthorns was that of C. A. Saunders, at Manilla, Iowa, June 4th, when 41 head sold for an average of \$314.80. The highest price for a bull was \$805, for the roan senior bull calf, Cumberland Dictator. The white yearling, True Cumberland 3rd, sold for \$510. The top price for a female was \$600, for the roan two-year-old, Scottish Cumberland. The roan three-year-old, Lady Cumberland, sold for \$590.

TRADE TOPIC.

DOMINION FAIR ENTRIES MUST BE MADE EARLIER.

The holding of the Dominion Exhibition in conjunction with the Central Canada, Ottawa, this year, necessitates the making of all entries a couple of weeks earlier than usual. The Dominion Fair dates are from September 5th to 16th. August 20th has been fixed as the last day for receiving entries. In the past, entries were received at the Ottawa Exhibitions up to within a couple of days of the opening. The change of regulation in this respect is so considerable and so imperative that the management is using every means to notify farmers, stockmen, and others concerned. The work of classifying and compiling lists will be enormously increased for the Dominion Exhibition. Even in past years exhibitors have found it to their advantage to get through with the routine of making entries before the bustle of the last few days. The 1912 prize list will be ready for mailing to applicants in a few days, and any other information in regard to making entries will be furnished by Manager, E. McMahon, 26 Sparks St., Ottawa.

QUESTIONS AND ANSWERS. Miscellaneous.

AGALACTIA IN MARES.

Will you kindly give an explanation to the following particulars regarding my three mares, all of which lost their colts:

1. The first mare had no exercise whatever before the time of foaling; the colt lived two days. Its mother had no milk. She went 36 hours over her time; foaled April 20th.

2. The second mare was well exercised, and the colt was dead when foaled. The mare went five days over her time; foaled May 5th.

3. The third mare went twenty days over her time. She was slopped for three weeks with oats, bran, and provender. She had no milk. Her colt lived three days. Had veterinary for this one; nothing done by him. She had exercise, and was on grass.

The three mares were in the same stable. Had no rough usage, and were well groomed. The same horse served all three mares.

4. Would it be advisable to breed again? All three raised colts last year, and had lots of milk. J. J. M.

Ans.—Agalactia, or absence of milk, occasionally occurs in mares without appreciable cause, and nothing can be done for the condition other than feeding on milk-producing food. It is strange that all three mares should have no milk, and is especially so with the one on grass. Bran should be fed to the mares during the winter. Would advise breeding again. Perhaps if the colts which were foaled alive had been given a little of the milk of a fresh-calved cow, according to directions often repeated in these columns, and at the same time had been induced to keep sucking their dams, they would have survived, and the mares would have gradually come to their milk.

MARKETS.

Toronto.

At West Toronto, on Monday, June 17th, receipts numbered 83 cars, comprising 1,455 cattle, 1,099 hogs, 229 sheep, 107 calves, and 19 horses. Trade brisk; stall-fed, firmer. Exporters, \$8 to \$8.40; export bulls, \$6.50 to \$7; choice butchers', \$7.75 to \$8.10; good, \$7.50 to \$7.65; medium, \$6 to \$6.50; cows, \$4 to \$6.65; milkers, \$40 to \$70; calves, \$4 to \$8. Sheep, \$4 to \$5.50; lambs, \$9 to \$10.50 per cwt. 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 last week were as follows:

	City.	Union.	Total.
Cars	179	240	419
Cattle	2,206	3,353	5,559
Hogs	3,581	3,906	7,487
Sheep	1,177	491	1,668
Calves	1,024	230	1,254
Horses	6	232	238

The total receipts of live stock at the two markets for the corresponding week of 1911 were as follows:

	City.	Union.	Total.
Cars	256	187	443
Cattle	3,267	2,751	6,018
Hogs	5,921	3,116	9,037
Sheep	2,263	897	3,160
Calves	799	97	896
Horses	23	54	77

The combined receipts of live stock at the two markets for the past week, show a decrease of 24 cars, 459 cattle, 1,550 hogs, and 1,492 sheep; but an increase of 358 calves, and 161 horses, compared with the corresponding week of 1911.

Again the best informed, or, at least, those thought to be the best-informed drovers and dealers, were astonished at the large receipts of live stock at both markets, but more especially at the Union Stock-yards, as each week for some time past has been predicted as being the last of the big runs, but still they come. Monday's prices at the Union yards for some time past have predominated during the remainder of the week. At the Union yards on Monday of last week, trade early in the day was slow, especially for export cattle, as buyers seeing the heavy receipts, were trying to get them at lower prices. The sellers, however, held on to their cattle, especially when they heard of the light receipts at Chicago. In the afternoon the market became active for the export class, and prices advanced to \$8.15 for the best distillery-finished steers. Stall-fed cattle held firm during the week, but grass-finished cattle, especially cows, at the latter end of the week, sold at 50c. to 75c. per cwt. lower than on Monday.

Exporters.—Mr. Howard bought 300 export steers for Swift & Co., of Chicago; 150 for London, at \$7.75 to \$8, and 150 steers for Liverpool, at \$7.65 to \$8. Alexander McIntosh bought for J. Shamburg & Son, 172 distillery-fed steers, 1,260 lbs. each, at \$8.15; also one carload of bulls, 1,700 to 1,800 lbs. each, at \$6.55.

Butchers.—Best steers of export weight and quality for local killing, \$7.75 to \$8; good, \$7.25 to \$7.60; medium, \$6.75 to \$7.15; common, \$6.25 to \$6.60; inferior, light cattle (stockers), \$5.50 to \$6; cows, \$3.50 to \$6.50; canners, \$2.50 to \$3.

Stockers and Feeders.—Feeders, 800 lbs. each, sold at \$6.50 to \$6.70; stockers, 600 to 700 lbs., sold at \$5 per cwt.

Milkers and Springers.—On an average, milkers and springers sold at \$5 to \$10 per head lower than last week. Prices ranged from \$40 to \$70 for the bulk, but one cow of extra quality sold at \$100.

Veal Calves.—Prices for veal calves remained firm all week, at \$4 to \$7.50 per cwt. for the bulk of offerings, but "bobs" sold at \$3 each, while new-milk-fed veals sold at \$9 to \$8.50, and one choice new-milk-fed calf brought \$9 per cwt.

Sheep and Lambs.—Receipts were moderately liberal, and prices for sheep were fully 50c. per cwt. lower. Light-weight ewes sold at \$5 to \$5.50 per cwt., and

yearlings at \$6 to \$6.50 per cwt.; heavy, fat ewes, sold at \$4.50 to \$5 per cwt.; rams, at \$3 to \$4 per cwt.; spring lambs sold at \$9 to \$10.50 per cwt.

Hogs.—Prices at the beginning of the week were held down to \$8.50 for selects fed and watered, and \$8.15 f. o. b. cars at country points, but at the close of the week prices had advanced to \$8.60, fed and watered, and \$8.25 f. o. b. cars.

Horses.—On Wednesday, at the Union Horse Exchange, Union Stock-yards, one of the best sales of the season took place. A large consignment of imported Welsh and Shetland ponies, as well as a large number of horses, were offered for sale. Nearly all the ponies were sold, at prices ranging from \$50 to \$100 each. A very large percentage of the horses were sold, principally to local buyers, although several car lots went to Eastern buyers. There were buyers from Ottawa, Montreal, Brampton, and Weston, but the majority were representatives of Toronto merchants and transport companies. Altogether, it was certainly the best sale held at these stables in months. Prices ranged as follows: Drafters, \$200 to \$275; general-purpose horses, \$175 to \$250; express and wagon horses, \$150 to \$200; drivers, \$100 to \$175; serviceably sound, \$50 to \$100; ponies, \$50 to \$100 each.

BREADSTUFFS.

Wheat.—No. 2 red, white or mixed, \$1.05 to \$1.06, outside points; Manitoba No. 1 northern, \$1.10; No. 2 northern, \$1.07; No. 3 northern, \$1.04; track, lake ports. Oats—Canadian Western extra No. 1 feed, 49c.; No. 1 feed, 48c.; track, lake ports; Ontario No. 2, 48c. to 49c.; No. 3, 47c. to 48c., outside points; No. 2, 50c. to 51c., track, Toronto. Rye—No. 2, 85c. per bushel, outside. Buckwheat—\$1 per bushel, outside. Barley—For malting, 87c. to 88c. (47-lb. test); for feed, 60c. to 65c., outside. Peas—No. 2, \$1.20 to \$1.25 per bushel, outside. Corn—No. 3 yellow, 79c., track, bay ports; kiln-dried No. 3 yellow, 82c., bay ports. Flour—Ninety per cent. winter-wheat patents, \$4 to \$4.10, seaboard; Manitoba flour—Prices at Toronto are: First patents, \$5.70; second patents, \$5.20; strong bakers', \$5 in jute; and \$5.10 in cotton.

HAY AND MILLFEED.

Hay.—Baled, car lots, track, Toronto, No. 1, \$21 to \$22; No. 2, \$19 to \$20 per ton. Straw.—Baled, car lots, track, Toronto, \$9 to \$10. Bran.—Manitoba, \$23 per ton; shorts, \$26; Ontario bran, \$24 in bags; shorts, \$27, car lots, track, Toronto.

COUNTRY PRODUCE.

Butter.—Market easier for lower grades. Creamery pound rolls, 27c. to 28c.; creamery solids, 25c.; separator dairy, 24c. to 25c.; store lots, 21c. to 22c.

Eggs.—Strictly new-laid, 24c., by the case.

Cheese.—New, per pound, 15c. to 15c. Beans.—Receipts light. Car lots, worth \$2.60 to \$2.70 per bushel.

Poultry.—Receipts light. Spring chickens (broilers), 45c. to 50c.; spring ducks, 30c. per lb.; last year's chickens, or hens, 18c. to 20c. per lb.; old hens, 15c. per lb.; turkey gobblers, 16c. to 20c. per lb., according to quality.

Potatoes.—Prices easier; car lots of Ontario potatoes, track, Toronto, \$1.50 per bag; New Brunswick Delawares, \$1.65.

HIDES AND SKINS.

Prices for hides and skins at Toronto for the past week were: No. 1 inspected steers and cows, 13c.; No. 2 inspected steers and cows, 12c.; No. 3 inspected steers, cows and bulls, 11c.; country hides, cured, 11c. to 12c.; country hides, green, 10c. to 11c.; calf skins, 18c.; sheep skins, \$1 to \$1.50; horse hair, per lb., 34c.; horse hides, No. 1, \$3.25; tallow, No. 1, per lb., 5c. to 6c.

FRUITS AND VEGETABLES.

Oranges, navels, per case, \$3 to \$3.50; lemons, per case, \$3.25 to \$4; bananas, per bunch, \$1.75 to \$2; pineapples, case, \$2 to \$2.75; potatoes, new, \$1.50 per barrel; onions, Egyptian, per sack, \$2.50; strawberries, per quart, in case lots, 15c. to 17c.; cabbage, per crate, \$2.50 to \$3; asparagus, per dozen, 50c. to \$1.75; tomatoes, Florida, \$3 to \$3.50 per case; spinach, 75c. to \$1 per bushel; green beans, per hamper, \$2; wax beans, per hamper, \$2; watermelons, 15c. to 60c. each.

Montreal.

Live Stock.—The supply of cattle on the local market was slightly larger last week, but this did not have a weakening effect upon prices, sales taking place at 1c., and even 1c. more per lb., in some instances. There was a good demand from buyers, and the gathering of butchers was large. Choice cattle sold all the way from 8c. to 8c. per lb., and fine in the vicinity of 7c. to 8c.; good, 7c. to 7c.; medium, 6c. to 7c., and common as low as 5c. per lb. Milch cows sold at \$75 to \$90 for choicest; common as low as \$65 each, and springers as low as \$50 each. Ewes brought around 5c. per lb., and bucks and culls around 5c. per lb. Lambs sold at 6c. to 7c., and hogs ranged from 9c. to a fraction more, weighed off cars, but buyers were not prepared to pay that much for the balance of the week, they declared. There was a good supply of calves on the market, and the quality showed some improvement. The price ranged from \$3 to \$10 each.

Horses.—The season has been held back by the enormous amount of rain which has fallen since the beginning of May. For weeks it has rained almost every day, and as a result the farmers have not felt that their spring seeding is by any means final. This is the case with those who have got farthest forward with it, while the others are still away behind. This has had the effect of curtailing the offerings of horses by farmers. Demand, however, is all that dealers could ask for. The business of the port is active and horses are being worked up to the limit. Heavy draft horses, weighing from 1,500 to 1,700 lbs., \$300 to \$350; light draft, 1,400 to 1,500 lbs., \$225 to \$300; light horses, 1,000 to 1,100 lbs., \$125 to \$200, and broken-down stock as low as \$75. Choice saddle and carriage animals steady, at \$350 to \$500 each.

Dressed Hogs.—The market for dressed hogs was rather easier, in sympathy with that for live, and prices declined to 12c. and 12c. per lb., for abattoir-dressed, fresh-killed.

Potatoes.—The market for potatoes continued steady. Green Mountains sold at \$1.70 to \$1.75 per bag of 90 lbs., carloads, track. In a jobbing way, sales were made at \$2 per bag. The weather has been greatly against the seed for the new crop, although there was a slight improvement last week.

Honey and Syrup.—The market was steady. Honey sold at 10c. to 11c. per lb. for white clover comb, and at 8c. to 10c. for extracted. Dark comb was 7c. to 7c., and extracted 7c. to 8c. Maple syrup, 7c. to 7c. per lb. in wood, and 70c. to 75c. in tins. Sugar, 9c. to 10c. per lb.

Eggs.—The market held very firm for eggs. The stock continued of fairly good quality, and selects were sold at 26c. in single cases. Straight receipts in single cases were about 22c. to 22c., and seconds 17c., with 1c. off for larger quantities.

Butter.—The market experienced a break and buyers were only prepared to pay about 24c. to 24c. in the Townships, owing to the falling off in the Western demand. The general price here was 24c. to 25c. per lb. for finest creamery, in large lots, smaller quantities being fully 1c. more. There has been no export to England as yet.

Cheese.—Exports to date are 134,000 boxes, against 200,000 a year ago. The market was easier, though still high for this time of year. Top for Easterns was 13c.

Grain.—The market for oats was fair, and prices were 55c. to 55c. for No. 2 Western, per bushel, car lots, ex store; No. 1 extra feed sold at 51c. to 52c.; No. 1 feed, 50c. to 51c.; No. 3 Canadian Western, 50c. to 50c., and No. 2 feed, 49c. to 50c. per bushel.

Flour.—The market for flour held steady, and the tone quite firm, particularly on Ontario, notwithstanding the advance which took place two weeks ago. Manitoba spring-wheat patents, firsts, were \$6.10 per barrel; seconds, \$5.60, and strong bakers', \$5.10. Ontario winter-wheat patents, \$5.25 to \$5.35, and straight rollers, \$4.80 to \$4.90. This was for 50-lb. in wood. Bags were 30c. less.

Millfeed.—Market for millfeed easy, at the recent decline, but no further change in prices anticipated. The grass is now good, and thus, it is the price of the feed. Prices for this week \$3.75 to \$4.00.

Business Methods Applied to Farming

FARMERS should make as free use of a bank's facilities as merchants; for farming, to be profitable, must be done on business lines.

Make a friend and confidant of the Bank Manager. Consult with him as to loans, investments, purchases and other business transactions.

The business of farmers is welcomed by

The Bank of Toronto

Another reason why the Bank of Toronto merits the confidence and favor of farmers is its high place among Canadian financial institutions. Assets, \$57,000,000; age, 57 years; 169 branches in Ontario, Quebec and the West.

in bags; shorts, \$26 to \$27; middlings \$28 to \$30; pure grain mouille, \$34 to \$38, and mixed mouille, \$28 to \$32.

Hay.—Hay was extraordinarily dear, but the luxuriant grass is helping out somewhat. No. 1 hay, \$23 to \$24 per ton, carloads, track; No. 2 extra, \$21 to \$22; No. 2 good, \$20 to \$20.50; No. 3 hay, \$19 to \$19.50, and clover mixture, \$17 to \$17.50 per ton.

Hides.—Beef hides were steady, at 11c., 12c., and 13c. per lb.; calf skins, 17c. and 19c., and horse hides, \$1.75 and \$2.50 each, according to quality. Sheep skins are \$1.20 each, and lamb skins 20c. Rough tallow, 1c. to 3c. per lb., and rendered tallow, 6c. to 6c.

Cheese Markets.

Utica, N. Y., 13c.; butter, 27c., 27c., 28c.; Farnham, Que., butter, 24c.; Canton, N. Y., 13c.; butter, 28c.; Madoc, Ont., 13 3-16c.; Woodstock, Ont., 13c.; Stirling, Ont., 13c.; 13 5-16c.; Campbellford, Ont., 13c.; Brockville, Ont., 13c.; Alexandria, Ont., 12c.; Brantford, Ont., 12 15-16c.; 13c.; Kingston, Ont., 12 15-16c.; Vankleek Hill, Ont., 13c.; Napanea, Ont., 13c.; Picton, Ont., 12 15-16c.; 13c.; 13 1-16c., 13c.; Listowel, Ont., bidding 12c. to 12c., no sales; Iroquois, Ont., 12c.; Kemptville, Ont., bidding 12 13-16c., no sales; Ottawa, Ont., 12c.; Cowansville, Que., 12 13-16c.; butter, 14c.; Belleville, Ont., 12 13-16c.; butter, 24c.; Belleville, Ont., Watertown, N. Y., 14c.; St. Hyacinthe, Que., 12c.; butter, 24c.; Cornwall, Ont., 12c.

Chicago.

Cattle.—Beeves, \$6.20 to \$9.40; Texas steers, \$6.60 to \$8.25; Western steers \$6.80 to \$8.30; stockers and feeders \$1.30 to \$6.80; cows and heifers, \$2.90 to \$8.30; calves, \$5.50 to \$8.50.

Hogs.—Light, \$7 to \$7.40; mixed, \$7.05 to \$7.45; heavy, \$7 to \$7.50; rough, \$7 to \$7.20; pigs, \$5.15 to \$6.85.

Sheep and Lambs.—Native, \$3.25 to \$5.15; Western, \$3.50 to \$5.15; yearlings \$4.75 to \$7. Lambs, native, \$4.50 to \$8; Western, \$4.75 to \$8.10.

Buffalo.

Cattle.—Prime steers, \$8.50 to \$9.25; butcher grades, \$3 to \$8.

Calves.—Cull to choice, \$6.75 to \$8.75.

Sheep and Lambs.—Choice lambs, \$8.25; cull to fair, \$6 to \$8.25; yearlings, \$6 to \$8; sheep, \$2 to \$5.25.

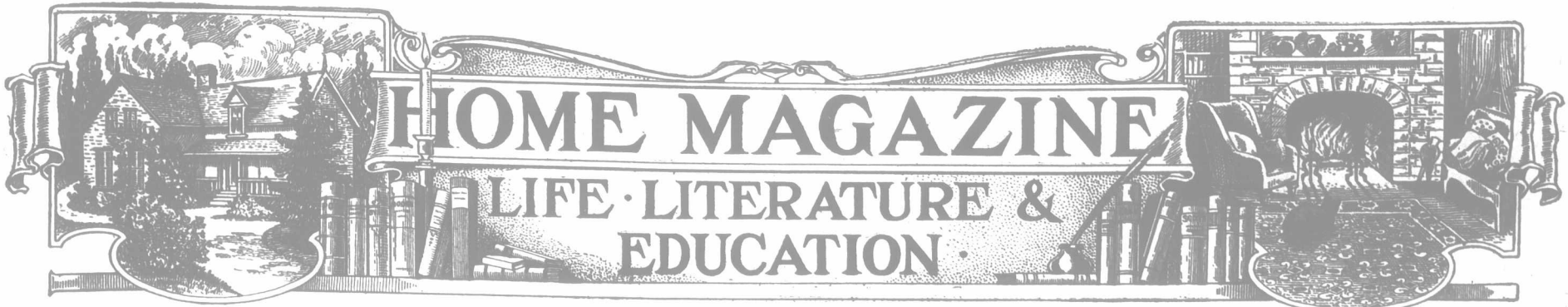
Hogs.—Yorkers, \$7.65 to \$7.70; heavy, \$7.70 to \$7.75; roughs, \$6.25 to \$6.75; steers, \$5.50 to \$6.20.

British Cattle Market.

John Rogers & Co., Liverpool, cable bought ranchers from 13c. to 15c., and Canadian steers from 16c. to 16c. per pound.

A REAL TEST.

Each is believing the dentist when he says it isn't going to hurt.



Some Old-time Echoes.

ON TREK IN THE TRANSVAAL.

I have lingered somewhat too long upon the threshold of my little story, but the actual getting away, owing to the many arrangements it entailed, and the uncertain length of our absence from home made it a deed almost as difficult of accomplishment as when, with broken disselboom and embedded wheels, our wagon had to be (literally) dug out of the mud of the Vaal River.

THE BAY OF BISCAY, O!

Of that frisky and very uproarious Bay of Biscay, of what havoc it played with the many unfortunates whose frames were not constructed to bear unruffled its tiresome pranks of wind and waves, my journal tells, followed by the comment, "but once through the bay, who does not forget the petty miseries its boisterous spirits have entailed in the contemplation of the calmer glories of a tropical sea; or, once having seen them, who can forget those gorgeous sun-risings and sun-settings, that wondrous moon with its subtle links of sympathy with mortal moods, those stars which, in spite of their bewildering numbers, seem each to have its friendly message of cheer and hope, and its promise of good-comradeship henceforth in the new and beautiful land to which we are bound?"

I skip over my notes of our little outing at Madeira with those funny diving-boys and their "one sheeling, gentlemenst one sex-pence, sar!" taking one's breath away with their performances for either sum; also of our stay in Cape Town, of what we saw there, of Wynberg and Constantia, and what we tasted there; of Algoa Bay, with its town, Port Elizabeth; of Mossul Bay and East London, and after a brief mention of Natal itself, will endeavor to get "on trek" as soon as possible. On the 10th May, 1895, is the entry.

OUR FIRST DRIVE IN NATAL.

At Cape Town we had transhipped into the smaller coasting vessel for Natal. We are now steaming along famously, and expect to arrive in Durban Bay tonight, but whether the "Zulu" can get over the bar or not until to-morrow remains to be seen. The coast is bold and fine, with tempting-looking sandy beaches every here and there, and more trees to soften the outline. Through the glass we can see monkeys climbing amongst the branches alone and in groups, the woods here being reported to be full of them.

At 2 p. m. we have rounded the bluff which stands out in bold relief, light-house crowned, at the entrance to Durban Bay, as lovely a bay as any other part of the world could show. . . Arrived at the landing stage in a small boat, we found that we were too late for the train to town. This train, which consists of a few carriages and trucks running to and fro several times daily between Durban and the Point, being the only railway in Natal. It is conducted upon very primitive principles, early closing being one of them.

My next chapter tells of the improvised express wagon which took us to our Durban Hotel, over what seems to have been unbroken ground, the very recollection

of which makes my bones ache as I write. As long as we kept to the sands our rigmorally progress had not seemed to matter so much, but our Jehu presently turned off into what appeared to be an untrodden bush. This he charged with as much confidence as if it had been a finely-macadamized road, and every moment we expected to be pitched out like rubbish from a gardener's wheelbarrow. We continued our mad career to the very gate of our hotel-quarters, actually without an upset, bruised, but unbroken, at the end of the first stage of our journey.

OUR FIRST NIGHT IN NATAL.

If our first drive in Natal will never be forgotten by us, neither will be our first night there, also.

"What are those black things like large lumps of beeswax upon the wall near the ceiling?"

"Oh! those are only old hornets' nests!" was the reply.

"Ugh!" shuddered I. "But please come back Mrs. X," I shouted, as I heard our landlady's departing footsteps. "Would you kindly tell me what those things are walking about under the bed where they seem to have scampered off for shelter as we brought the light into the room?"

"Those! Why, they are only cockroaches," said she, evidently thinking me full of fads and fancies and making off speedily lest I should interrogate her further.

Moths nearly as big as bats flew within and without the room, whilst bats bigger than the biggest moths flapped noisily against the lighted window-panes outside. "Down came a spider and sat down beside her"—One spider only frightened Miss Muffet away, but had her spider been of the South African variety, gross, able-bodied, and unwieldy, which let themselves down upon you at frequent and unexpected intervals, I believe the story of poor little Miss Muffet would have had a far more tragic ending.

Since the days of which I then wrote, Natal has stepped bravely into the line of progress. It has civilized methods of transport, fine lines of railway to convey yourself and your belongings, instead of the running Kafir who thought nothing of carrying your heavy portmanteau upon his back for a forty- or fifty-mile journey, whilst you started ahead of him by post-cart or bullock-wagon, and arrived at your destination as best you could, and when you could; but I would venture to predict, though I should be sorry to have to prove it by a personal inspection, that no amount of civilization has routed those determined insects, which, especially on the coast levels of South Africa, seem to turn out in squads and battalions to welcome the new-comer to their shores.

WHEN DAYLIGHT DAWNED.

Daylight ushered itself in with a chorus of sights and sounds foreign to English ears. "Pad, pad," went the shoeless feet, and a fumbling rather than a knocking at the panel, announced the early coffee, handed in through the partly-opened door by a long, black paw. This matutinal draught is one of South Africa's most sacred institutions, born of Africa's most sacred institutions, born of the early rising induced by the climate. Dogs barked, and cocks crowed, and South African cocks crow more vociferously and unintermittently than their brothers in any other part of the world, or so I thought.

I found a lovely bunch of roses on my plate at the breakfast table, with a card of kindly greeting.

Natal has roses. Nature knows no stint in leaf or flower, and decks her gifts here with hues with which few countries can compare. H. A. B.

(To be continued.)

Hope's Quiet Hour.

Wash One Another's Feet

If I then, your Lord and Master, have washed your feet; ye also ought to wash one another's feet.—S. John xiii: 14.

The Man Whom millions delight to honor, was about to offer the Great Sacrifice which should secure the world's redemption. Knowing the supreme importance of the occasion, remembering that the Eternal Ruler of all the ages had given all things into His hand, and that as He had come from God He was to return to God, knowing also that the world would never forget his actions on that last night, He did a strange thing. Declaring Himself to be "Master and Lord," He stooped to the work of a slave. Bowed low before His own servants, He washed their feet. Why did He not call in a slave or a paid servant to attend to this necessary act? How much the world would have missed if He had. One great change which the Life of God in Man has wrought in the opinions of men is the great conception of the glory of service. The Master rouses our admiration when He stands in righteous wrath and drives the traders from the Holy House of God, but He wins our love when He stoops tenderly to wash the hot and dusty feet of rough fishermen. If He had despised the task, as menial and degrading, it would have been menial and degrading. But He felt the glory of ordinary service, and we too can feel it if we are great enough to sink our pride and do as He has done.

Our Leader knew that this lowly, lovely act would be an inspiration to countless eager hearts, longing to do great things. He knew that it was His God-given vocation at that moment, as certainly as it was His vocation to save mankind by His death a few hours later. It was a great action—though it was as commonplace as the washing of dishes after a meal—and it has inspired men and women ever since, teaching us all the glory of commonplace work. Christianity—the real following of the Living Master—has a marvellous power of glorifying whatever it touches, and it should touch, everything. Every moment of our lives may be devotional—devoted to God—even when we are scrubbing a dirty floor or cleaning a dusty window. We know now that if a man wants to be religious he does not have to spend his life in preaching. We don't need to turn our backs on the world in order to live with God. If we consciously transform our ordinary work into "service," offering it joyously to our King, then we can never grumble because our lives are dull and wearisome. Like our Master, we come from God and are going to God. When we remember this glorious fact, the most ordinary work becomes great and noble—the vocation, or calling of a child of the King.

"Is thy labor very lowly?
Brother see, at Nazareth He
Swept the floor for Mary.
Knowest thou what it is to labor,
Toiling on till youth is gone?
All His life He labored.
Dost thou serve an earthly master
And his will not thine fulfil?
Jesus worked for Joseph."

We women have special reason to be thankful for that one recorded act of humble, everyday work, performed by our Lord during His earthly life; for it is quite enough to change wearisome drudgery into high and glorious service. Women, even more than men, have the privilege of serving in countless, unnoticed ways. They are called to "wash

one another's feet" many times a day—if not literally, at least in the way of doing little things to make other people comfortable. Is it not possible to fill the days with fragrance by remembering that in ministering to His servants, you are allowed the high privilege of washing the feet of the Master of the world? Do you think it scarcely worth while to set the table with a snowy cloth and shining dishes, when it is "only for the family"? Have you forgotten that the King will certainly be your Guest? When you make the rooms look fresh and dainty, He will notice everything, and will make your heart glad with His loving approval. If the house is neglected and the meals served in a slovenly fashion, then you are in the position of one who has been offered a splendid vocation and has refused it.

If you are given the high privilege of walking in the steps of the Master, Who chose to do "trivial and commonplace" (so-called) tasks, then "serve the Lord with gladness." Make sure that the people who live with you can read the joy in your face and hear it in the glad ring of your voice.

Those who do not "rejoice in the Lord," but make other people think that the service of Christ is a gloomy and unattractive vocation, are bringing dishonor on the cause of the Master they love, and are helping to keep others away from Him. Remembering that it is a privilege to be permitted to wash one another's feet—to do any small kindness for their comfort—there is little to fear but that your pleasure will reveal itself. You don't need to talk about the happiness in your heart. The important thing is to be happy.

And let us cultivate tender gentleness in our work for others. If we were given the wonderful privilege of washing our Master's feet—as Martha and Mary may often have done when He visited them at Bethany—how reverent and gentle our touch on that sacred flesh would be. There would be no roughness or rudeness, no hurrying to "get through" a disagreeable task. And our ministering to Him—through the ordinary people around us—may, if we choose, be really touching Him. There is nothing doubtful about His plain statement: "Inasmuch as ye have done it unto one of the least of these My brethren, ye have done it unto Me."

And, if we carelessly let slip our opportunities of washing one another's feet,—perhaps because we are very anxious to do something which seems to us more important—then we have neglected our Master, as a man once did who invited Him to his house and did not even tell a servant to wash His feet. "Inasmuch as ye did it not to one of the least of these, ye did it not to Me," He says.

And there is another wonderful privilege in being allowed to "wash one another's feet"—allowed to serve them in commonplace ways. The Master wants to touch men through you and through me. When we are washing the feet of His weary children—waiting on them and working gladly for them—He is touching them through our hands, touching their bodies and their souls.

Perhaps you hear of great things being done in the world, and get discouraged because you only have the chance to do little things that don't seem to count for anything, and that have to be done over and over again through long, monotonous years. But are these things really your vocation? Has God plainly called you to serve Him just where you are? Then think of the high honor of being chosen by the mighty Creator of the universe to do His work in any particular place. Lift up your head joyously and go high-heartedly on with the commonplace duties. If we want to win the Master's

"Well done, good and faithful servant!" we must be satisfied to do a servant's work. We must do it willingly, not grudgingly, knowing that the unnoticed work, which the world looks down upon, is always glorious in God's sight, if it is done for His sake.

"God asks not what, but whence the Work is—from the first
He turns His eye away, to prove the inmost root."

DORA FARNCOMB.

Editor "The Farmer's Advocate":

You will please find a piece of poetry enclosed for your Quiet Hour page. Hoping it will furnish food for thought for some of your readers.

Yours truly,

CHESTER FEATHERSTON.

What Does It Matter?

What does it matter, I often think, as we jostle and crowd each other, Whether we travel life's rugged way behind or ahead of our brother? Why need we crowd and jostle so? Why hasten so swiftly along? With never a pause in the wayside shade for a whispered prayer or song? What does it matter if nights are long, and filled with pain and sorrow, If the faint heart shrinks in fear and dread at the tasks to be done tomorrow? The rosy tints of the dawn will come with strength for the day's stern duty, And only those who have known the night can enjoy the morning's beauty. What does it matter if plain our garb and rough our hands with labor, If fame and gold come not to us as they do to some lucky neighbor? The truest wealth is not gold or lands, but a heart that is true and cheery, A faith that brightens as days grow dark and smiles when the way is dreary. What does it matter if all unknown, unhonored, unsung we are living, Where the eyes of the world can never see the service we're gladly giving? Faithful labor hath sure reward, for the Master's eye ne'er sleepeth, He knows where weary gleaner toils and a fadeless record keepeth.

MRS. A. STERNS.

Toronto Children's Fresh Air Mission.

Sometimes it is hard to put nice things in a right light, but we feel that the best that can be said is none too good for "The Farmer's Advocate" and its many friends. For years they have been the true helpers of the Toronto Children's Fresh-air Mission, opening their hearts and homes to receive the children of God's poor.

It is very difficult to express the deep feelings of gratitude that the committee have, for there is no doubt much of the success and blessing of the work is due "The Farmer's Advocate" and its friends.

Owing to the fact that some fourteen different churches and societies are now carrying on fresh-air work in Toronto, our workers have been led to discontinue this branch of the Mission for the present season, but on behalf of the poor lads of the Boys' Home, we would like to make an appeal for homes sufficient to give sixty of them a two-weeks' holiday during July and August; their ages run between 6 and 14, and we doubt if there is one of the sixty who has ever seen a farm. They are the unfortunate children of our city, who for one reason and another have become the wards of the Home; most of them have been deserted or neglected by their parents, and the lads do need the holiday. Do you think thirty homes could be gotten through "The Farmer's Advocate," where two boys would be cared for in each during two weeks in July. Mrs. C. P. Smith, 112 Crescent Road, Toronto, would be pleased to hear from any who would care to take them. There may be some, too, who would like to share in this through gifts of money. Our Treasurer would be pleased to acknowledge receipt of such. Let me say that the average cost to give a needy child a two-weeks' holiday in the country is only ONE DOLLAR. It may be of interest to the friends to know that some of these lads could be adopted, if proper foster homes are found. Mrs.

Smith would also give the necessary information as to this.

CHAS. D. GORDON,
Superintendent.

Treasurer of Missions: Mr. Martin Love, 93 Castle Frank Road, Toronto.

The Roundabout Club

Literary Society Prize-winners for the Year.

"Will they send us their photos?"—that was the question, when the proposal that we publish the portraits of the prize-winners of "The Farmer's Advocate" Literary Society for the last season was mooted. Many of our students had written under a nom-de-plume,—would they care to draw away the veil of that concealment?

Yet, why not? It was creditable, surely, to be a prizewinner,—and it must be a matter of interest to each member of the Roundabout Club, as well as to all who have been following the work of the students otherwise, to be able to form some conception of what each of these clever people look like. . . . Just here may we observe that the photos received were, in several instances, much better than the reproductions which appear today. One can never foretell just the result that may come from a copper-plate, or "cut," in usual parlance, and occasionally the outcome, as in this case, is somewhat disappointing.—But it is pleasant to be told that one is better-looking than one's picture, is it not?

To make a long story short, we wrote for the photos, and in only four instances were refused,—in those, not from reluctance upon the part of those to whom the request was made, but because there was not at hand a photo to be sent, and the time was one too busy to permit of a trip to town to the photographer's.

Not one of the staff at the Roundabout Club headquarters had ever seen any of the prizewinners, hence you may judge of the interest with which the photos were received as they came in, day after day, confirming the conjecture that our Farmer's Advocate Literary Society has been one of the most cosmopolitan among societies of the kind in the world. Boys and girls of seventeen or eighteen, it was now evident, mature men and women of double their age, had been glad to study together and had found mutual interest and inspiration in doing so.

It is a grand thing—this finding interest and inspiration in intellectual effort. The tendency to-day is, more than it should be, to go too far the other way. Often, in our schools—oblivious to the great truth that the educated man is the one whose mental, physical, and moral faculties have been harmoniously developed—athleticism is permitted to loom large, out of all reasonable proportion, in the thoughts of the students; often, in the commercial and work-a-day world, mere money-getting, with all the sordidness that it induces when unaccompanied by higher interests, fills the whole plane of vision. The work of the students of our Literary Society has shown that, in the face of those tendencies (which, by the way, are quite as strong, although evinced in a different way, in the country as in the town) there are, away out on the farms, boys and girls, men and women, who have risen above the common level, and have been willing to make effort for the mere sake of culture and mental development. We trust that each and all have learned, thereby, something of the keen joy of using the powers of the mind for such ends.

Reading between the lines of the many letters received in acknowledgment of the prizes, we have known that the winning of the prizes themselves—books—has been but an incident,—although we trust that those who won them have enjoyed them thoroughly, or have, at least, gained therefrom some idea or reflection that will make life richer. We are of the opinion, too, that competitors whose successes were not thus marked, have not been in the least disappointed or chagrined; they have had the mental exercise, at all events, and that was the aim in view. On the other hand, it may be surmised that those who have won the prizes have not been unduly elated,

pleased they have been, perhaps, but that much more because of the work than because of the extra honor bound up in the prizewinning.

We are pleased, then, for many reasons, to give our thousands of readers the opportunity of looking at the countenances of those who took the highest marks during the past winter. Thoughtful faces—are they not?—faces that represent very truly the type of the cream of our rural population. We are sure that, did even a few more hundreds of our subscribers enter upon our yearly term of winter study, the pages of "The Farmer's Advocate" would not suffice to hold the representations of all the other thoughtful, intellectual faces that might be added. In closing, we may say, and say without flattery, that among the essays received during the past few winters, have been many of which the brightest students in the best Universities of our land need not have been ashamed. We trust that the good work will still go on, and that, when the Literary Society branch re-opens next November, its list of working members may be augmented by many names that have hitherto found no place there.

In publishing the portraits to-day, we have followed the wish of our students as to whether pen-name or real name should be given. It may be of interest, however, to designate also the names of the counties represented, the only regret being that there are no results to publish from Provinces other than Ontario, that portion of the Dominion having supplied practically all of the students during the past winter.

No especial order of merit has been observed in making out the list.

"Bernice,"—Mrs. F. P. Moore, Bruce Co., Ont.
Mrs. Walter Buchanan,—Grey Co., Ont.
Mr. W. J. Way,—Kent Co., Ont.
"Woman with the Hoe,"—Lambton Co., Ont.
Mrs. Francis Hunter,—Halton Co., Ont.
Mrs. W. E. Hopkins,—Russell Co., Ont.
"Honor Bright,"—Halton Co., Ont.
"Rue,"—Welland Co., Ont.
"J. E. W."—Durham Co., Ont.
"A Lesser Spark,"—Bruce Co., Ont.
Miss A. M. Freeborne,—Perth Co., Ont.
Miss S. E. Oill,—Welland Co., Ont.
Miss J. Kemp,—Grey Co., Ont.
Mr. T. J. Rutherford,—Grey Co., Ont.
"Taps,"—Wentworth Co., Ont.
Mr. Dougald Cameron,—Glengarry Co., Ont.

Refusals came from Mrs. H. T., Victoria Co., Ont.; R. H. C., York Co., Ont.; "John," Huron Co., Ont.; "Ploughboy," Middlesex Co., Ont.—thus completing the list of prizewinners for the Literary Society term of 1911-12, twenty in all.

How to Act—Deportment

IV.

Often some embarrassment exists in regard to making introductions, yet it is but necessary to remember a few simple rules to avoid making awkward blunders in this matter.

To begin with, a man must always be presented to a woman, a younger woman to an older one; for instance, in presenting Mr. Jones to Mrs. Lewis, say "Mrs. Lewis, let me present (or introduce) Mr. Jones." Sometimes the one making the presentation chooses to add a few more words, as, "Mrs. Lewis, this is Mr. Jones, of whom I have spoken to you," or "Mrs. Lewis, may I introduce Miss Smith, who has just returned from the West?"

When acknowledging an introduction, a hostess must always arise. A guest does not arise when a man is introduced to her unless he is very old or very distinguished, nor, indeed, when a woman is introduced, unless the new-comer be much older or of much higher rank—the latter being a complication that seldom occurs in a rural district. If, however, a woman should chance to be talking to the hostess when a guest arrives, it is more graceful for her to arise with the hostess, standing back a little until the hostess turns to make the necessary introduction.

A man always arises for an introduc-

tion, and very young girls invariably, when meeting men or women older than they.

Occasionally in making introductions, the names only are pronounced very distinctly, without any introductory clause, but in this case care must be taken that the inflection of the voice shall indicate which is being presented. In this case, it is customary to pronounce first the name of the one to whom the presentation is to be made.

A hostess always offers her hand to anyone presented to her. Otherwise this is considered rather provincial, unless justified by especial circumstances. If, for instance, an older person wishes to express especial pleasure or interest in the one introduced, she is at any time at perfect liberty to signify the fact by extending her hand. The younger person should always wait for this, and never make the first advance, no matter how delighted she may be to make the acquaintance. In one's own home, however, the rule may be relaxed, somewhat, as it only seems gracious for the daughters to offer the hand of friendship to guests just as their mother would. In case the callers be young men, a smile and inclination of the head, with an immediate beginning of conversation in a friendly way, are quite sufficient.

In introductions to members of one's own family, formality is usually dispensed with. A daughter may say, "Mother, this is Mr. Jones," or, "Mother, this is my school-friend, Evelyn Gray." In short, the most direct, simplest, and most natural methods of introduction are usually the best. Elaboration and extreme precision anywhere usually savor of affectation, which is always to be avoided as a banner of vulgarity.

A man, by the way (and an older woman if she chooses), usually says, "I am very happy to meet you," or something of the kind, on being introduced. To this no reply is necessary other than an appreciative smile and inclination of the head. A young girl never uses the words, save when introduced to other young girls, when she may do so, if she wishes to be especially cordial, following up the expression of pleasure by some further statement, thus: "I am so pleased to meet you; I have heard Mary Smith speak of you so often."

It is customary, before introducing a man to a woman (unless in casual meeting), to ask her privately for her permission that the introduction be made.

When a small party is present, it is, of course, necessary to introduce each guest to all the rest. This is usually an awkward situation. May we quote what Emily Holt (an authority on matters of etiquette) says in regard to the matter: "In making a stranger known to a group of guests, a host or hostess, if the new-comer is a woman, would say, 'Mrs. Edwards, let me present Mrs. Brown, Miss Dora Brown, Captain Blank, and Doctor Jones.' But should it be necessary to perform this always rather awkward feat in behalf of a young woman, or of a gentleman, the master or mistress of ceremonies may dispense with all superfluous wording, and, mentioning first the name of the stranger, specify the guests or friends present, thus: 'Miss Edwards, Mrs. Jones, Mrs. Mason, Mr. Mason.'"

When the company is large, one should never attempt to present anyone to each in turn. It is quite sufficient to introduce the new-comer to the few who may be nearest, trusting to an opportunity, later, to make further introductions. Of course, it is often necessary to conduct the latest comer to meet a distinguished guest or one whom it is especially desirable that he or she should meet.

A letter of introduction should be very brief, and never effusive. On no account should it contain items of news, or anything pertaining to other than the express purpose for which it was written. It should be given to the person whom it is to introduce unsealed.

On arriving at one's destination provided with a letter of introduction, it is usually safest, provided the introduction be of a social nature, to send the letter along with one's card, through the post office to the person to whom it is addressed. In case the meeting is to be of a business nature, one may take it directly to the one to whom it is addressed, and send it in to him with one's card.

(To be continued.)

PRIZEWINNERS, "THE FARMER'S ADVOCATE AND HOME MAGAZINE" LITERARY SOCIETY, 1911-12.



Mrs. W. Buchanan.



Miss A. M. Freeborn.



"Rue," Welland Co.



Miss Jean Kemp.



Miss S. E. Oill.



"J. E. W."



Mrs. Francis Hunter.



Mrs. W. E. Hopkins.



"The Woman With the Hoe."



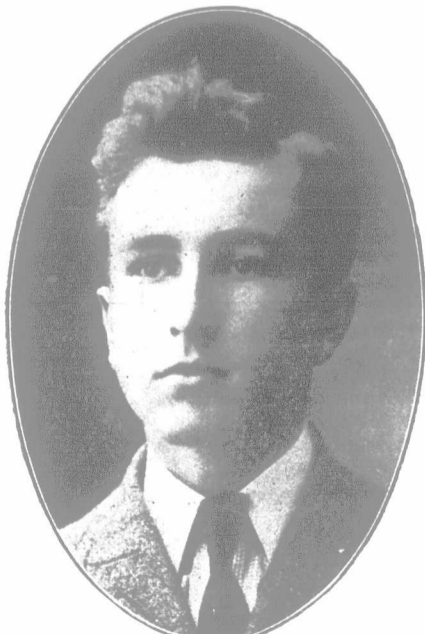
"Honor Bright," Halton Co.



"A Lesser Spark."



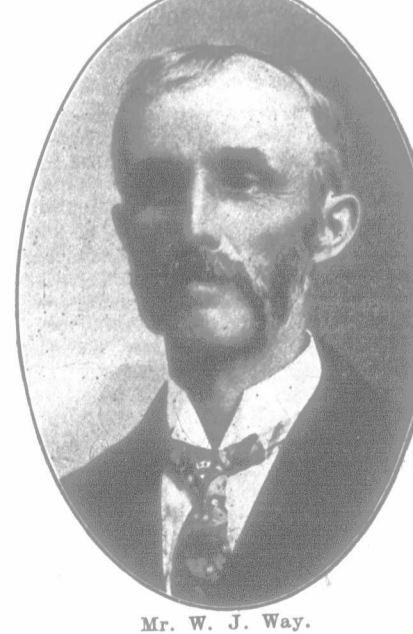
Mrs. F. P. Moore ("Bernice").



Mr. T. J. Rutherford.



Mr. Dougald Cameron.



Mr. W. J. Way.



"Taps," Wentworth Co., Ont.

"The Farmer's Advocate" Fashions.



6916 Square or Round Sweeping Caps with Half Sleeves, One Size.



7340 Semi-Princesse Gown, 34 to 42 bust.



7118 Girl's Dress, 8, 10 and 12 years.



7342 Girl's Dress, 4 to 6 years.



7360 Girl's Dress with Set-In Sleeves, 8 to 12 years.

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

A Sonnet from the Portuguese.

How do I love thee? Let me count the ways.
 I love thee to the depth and breadth and height
 My soul can reach, when feeling out of sight
 For the ends of being and ideal grace.
 I love thee to the level of every day's
 Most quiet need, by sun and candle-light.
 I love thee freely, as men strive for right.
 I love thee purely, as they turn from praise.
 I love thee with the passion put to use
 In my old griefs, and with my childhood's faith.
 I love thee with a love I seemed to lose
 With my lost saints—I love thee with the breath,
 Smiles, tears of all my life! and, if God choose,
 I shall but love thee better after death.
 —Elizabeth B. Browning.

The Ingle Nook.

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

Hot Weather Precautions

Dear Ingle Nook Friends,—Every year, with the hot weather, comes—as surely as "death and taxes," which are so often said to be the only sure things on this earth—the question of bacteria. From the time that we know anything of them,—what they are, what they do—we really must consider them in regard to many of the household operations, but more especially, perhaps, at this season of the year, for we cannot but remember that heat and moisture are the agencies which, above all, set a great variety of them multiplying into the millions, and that, consequently, if we are even fairly wise housekeepers, we must keep an especial eye on the bacteria and the somewhat allied organisms, yeast and moulds.

Somehow I never can rid myself of the hallucination that bacteria are a part of animal life. Possibly the feeling is associated with a distant era during which I used to scrub my face fervently with soap, just as my young nephew does today, to get what he calls the "microbes" off. Of course, bacteria are vegetable in nature, just as are the yeasts and moulds,—at least we must believe so, if we are to accept the verdict of the scientists—but that does not alter the fact that they get about with an animal-like facility for motion, not because they have legs of their own, but because they are so amenable to all moving powers that be. The burdock grows up in a spot and remains there for its natural life; the bacterium may be carried by wind, transported through milk or water, or by clinging to anything that moves,—the hair of animals, the fingers and clothes of people,—by a thousand other agencies. It may even be shot through the blood current. All the time it remains invisible, to the naked eye, but it is there all the time, and just as soon as the right conditions of moisture and heat present themselves, it begins to multiply, perhaps by self-division. Each division proceeds to do likewise, so that in an astonishingly short period of time the number has increased almost incredibly. Talk about houseflies increasing!—Their multiplication, even under the most favorable conditions possible, is practically nothing compared with that of bacteria in equally favorable circumstances. . . . And that reminds me, is not the "danger" of the housefly wholly due to the facilities which it possesses for carrying bacteria on its feet?

With the coming of the warm weather, then, the fight against bacteria and kindred organisms must be carried on with redoubled energy.

Certain species of bacteria cause putrefaction. These are all right in their places, since, did they not exist, the earth would become lumbered with dead bodies and other things that should be gradually resolved by rotting; the trouble arrives in the fact that they also attack meat, etc., which people must eat. Other species cause souring of milk; undue growth of the yeast plant causes souring of bread; the growth of moulds the spoiling of almost any article of foodstuff containing moisture which may be left for any length of time, and so the story goes. Now, when we know the conditions that favor all such growths and changes, we are provided with a cue whereby to fight them. We do know that moisture, warmth and darkness supply just those conditions, and so we have a foundation upon which to work. Provide just the opposite—dryness, cold, and sunshine—and the multiplication or growth of the destructive organisms must be materially checked.

Dryness is not a favorable condition—So we elect to live in dry houses, and point out that damp, gloomy ones are "unhealthy." Bacteria do not readily develop in dry substances—and so we find that we can dry fruits and certain vegetables, such as peas, green corn, and pumpkins, sure that so long as they are

kept in a dry place they will not spoil. Indeed, it sometimes seems strange that people do not take more general advantage of this method of preserving foodstuffs. The advantages are obvious: No sugar is necessary at the time for drying the fruit, a time at which the price of the sugar is likely to be high; the work of drying is comparatively easy, and the amount of space required for storage is comparatively small. There may be, it is true, a slight deterioration in flavor as compared with the canned product, but the nutritive properties are quite as high.

Warmth favors the increase of bacteria, therefore supply the opposite condition, cold. Provide ice, if at all possible, foods placed in a refrigerator "keep" well for a considerable time because the micro-organisms cannot readily multiply there.

Lastly, all "germs" love darkness. Keep rooms perfectly clean, then, and flooded with sunlight, and a long step towards securing the health of the family has been taken. Bacteria lie in dust heaps, ready to be scattered about, and they congregate in moist filth of any kind. Bright sunshine, however, is their worst foe,—indeed, most of the worst disease bacilli are destroyed on exposure to it for twenty minutes,—therefore, don't be afraid to let plenty of sunshine into the house, and especially into the sleeping-rooms. If it is a question of banishing sunshine or carpets, let the carpets go.

May one emphasize this point, that it is absolutely necessary that foodstuffs should be kept perfectly fresh to be fit for food. Meat that is even a little bit tainted, vegetables or fruits that are at all spoiled, may not safely be eaten. The least deterioration in fish may give rise to serious ptomaine poisoning. Listen to what Dr. Woods Hutchinson (in Saturday Evening Post) has to say on the subject: "It is not too much to say that nine-tenths of all our cases of acute indigestion, acute gastritis, or gastric catarrh, or colic, or biliousness, or diarrhoea, to say nothing of cholera morbus, dysentery and typhoid fever, are due, not to the kind or amount or combinations of food eaten, but simply and solely to its decayed, fermented or putrid condition."

Food, you see, that contains even a few bacteria of the harmful kind, may pave the way for reproduction of these in the body, and so cause one or more of these troubles.

"Three great factors," Dr. Hutchinson continues, "contribute most to our indigestion, and what we may term alimentary ill health: First, scarcity of food, particularly at certain seasons of the year; second, its corollary, the use of decaying, or spoiled, or badly preserved, or poor food; third, monotony of diet with insufficient variety, so that the three great kinds of foodstuffs—meats, starches and fats—cannot be obtained in their proportions."

It is clear, then, that if we would keep well, we must have plenty of food, and a goodly variety of it, all fresh, and in prime condition. The hard work of summer means an especial drain on strength; all the more need, then, of the ideal diet to keep up that strength and preserve the health.

BACTERIA AND THE CANNING PROCESS.

Just a moment here to recall the fact, which, no doubt, the most of you know, that all canning and preserving of foods is merely an effort to shut out the presence of bacteria and yeasts. When you can fruit, you sterilize the jars and jarpots, by boiling them for twenty minutes, because you know that this high temperature kills the bacteria and ferments, and you hurry the boiling-hot fruit into the jars and seal them up before cooling sets in, because you know that if you neglect this a few of the organisms may come floating along in the air and find entrance when the fruit is not hot enough to kill them.

Perhaps you may have had trouble with canning vegetables; you have given them exactly the same treatment as fruit, and yet they have spoiled. No doubt this was due to the presence of a species of bacteria which does not succumb to a boiling of twenty minutes. For this reason, it is usually recommended that

vegetables in the jars in a boiler for from three to five hours.

You know, too, that rich preserves and pickles keep better than fruit canned with just a little sugar. The reason of this is that bacteria of putrefaction do not thrive in rich syrups or in vinegar. Vinegar, it is true, should not be too lavishly used, as it has a tendency to retard the digestive processes; as taken, however, in condiments and relishes, which are eaten in small quantities, it does not, in ordinary cases, do much harm. Pickled fruits should never be used save as a relish, with meats. They should never be served instead of canned fruit or preserve, with bread and butter, as this entails the taking of too much vinegar. Dried fruits, well stewed, are, on the contrary, very digestible, as well as nutritious.

Salt, smoking, and spices, all help to retard the development of bacteria, and so meat is cured with a mixture of salt, sugar and spices. You will recognize the use of the same principle in the making of a rose-jar.

BACTERIA AND THE SICK-ROOM

Before closing, just a few words regarding bacteria in connection with disease may be said. As you all know the majority of diseases are caused by these micro-organisms,—bacilli, which vary in form, so that the expert can immediately tell, by examining a bacillus under a powerful magnifying glass, whether it be one that would cause typhoid, or diphtheria, or tuberculosis, or whatever the case may be.

Now, these bacteria may be carried by water, through the air, or transmitted by contact. If you would be sure of being spared typhoid fever, see that the water-supply is pure. In case of suspicion, have a bottle of it tested chemically; the Dominion analyst at the Experimental Farm, Ottawa, will do this for you. A drilled well is, of course, the safest kind, but if you have not one, you can at least see to it that the platform is tight and close all about so that no foreign matter can get into the well, that the ground all around it is kept clean; that there can be no possibility of drainage toward the well from barnyard or cess-pool.

When disease of a contagious or infectious nature exists in your house, do not forget, even for a moment, that the most scrupulous care must be taken to keep it from spreading. Remove all upholstery from the room, and all carpets and curtains that might possibly hold the disease-germs; be careful that every dish used in the sick-room is thoroughly scalded after using,—it would be safer, indeed, to keep a certain set for the use of the patient only; after handling the patient, wash the hands with soap and water,—you may add a disinfectant if you choose; be sure that all slop from the room is so disposed of or disinfected that the disease-bacteria cannot be spread about by means of them; and when the patient has recovered, disinfect and air the room so thoroughly that it cannot be a menace afterwards to anyone who may enter it. The necessity for thorough disinfection should be distinctly understood. Only to-day I read of a case of diphtheria breaking out on a train near North Bay (May 17th, time of writing), and of the fumigation of coach and passengers before the train was allowed to go on. One cannot be too particular about cleanliness when such disease exists. One cannot be too particular about keeping visitors safely away, nor about taking personal care not to kiss a patient suffering from a communicable disease, nor to inhale his breath.

Years ago I heard a doctor say, "Never, unless it is absolutely necessary, stay even an hour in a room with a consumptive. You may be able to resist the disease, but the trouble is that you may carry it to someone less resistant than you." Surely we cannot be too careful if carelessness endangers not only ourselves, but others also.

It is not necessary to repeat, perhaps, that all bacteria are not harmful; the most of you probably know about those that cause the ripening of cream, and give the rich flavor to butter and cheese, etc.

Those Chatterers, I wonder if it will be necessary to repeat all this next year. At this time, it seemed so like

going over the same old ground, and then—well, one has to think about new subscribers who might not be informed on this important subject, and who might have no library, no Women's Institute near from which to learn.

By the way, if any of you wish to find out still more about bacteria, you will find Conn's "Moulds, Yeasts and Bacteria" a most valuable little manual.

JUNIA.

An Experiment in Economy.

Dear Ingle Nook Folk.—Just a word more,—I scarcely know how to stop talking to-day, but really must tell you about a dressing-sacque that I made last week. I made it of six-cent factory cotton, finished it with Torchon lace at neck and sleeves, then dyed it blue with Maypole Soap. The experiment was a decided success, and I have thought since what fine working-dresses could be made in this way,—factory cotton is so very durable, and costs so very little. This may be an idea that some of you would like to work out.

RAGS FROM OLD CARPETS.

Dear Junia,—Do you know of any place in Canada where old carpets are re-woven? Some years ago I saw a very nice rug which had been made out of an old, all-wool carpet. It was done in Hamilton, but I have been unable to get the address, so the weavers may have left Hamilton.

I have been an interested reader of your department ever since my first acquaintance with "The Farmer's Advocate," and hope the Ingle Nook can soon be given a few extra pages.

Sincerely thanking you for any trouble my question may cause you.

"NAN."

Can any reader answer this question about re-weaving old carpets?

LETTER FROM WENTWORTH COUNTY.

Dear Junia,—For a number of years I have taken pleasure in reading your paper, but have never written before. After reading a letter, in your issue of May 23rd, on "Farm Life in Eastern Canada," I thought I would like to say that not everyone has had an experience like our friend M. S. I am sure she must be speaking from a very limited experience.

I, being a farmer's daughter, have always lived on a farm, and I do not know of one farmer's wife who has worn a hat for fifteen years. If there are such cases, it will be found to be the wife's own fault, as she will be just as miserly as her husband. I also think that I do not know of one farmer's wife who has not had her kitchen floor painted if she wished. I wonder in which part of this "Fair Canada of Ours" M. S. has lived? Surely there is no civilized country where the men just change their shirts once in six weeks.

She speaks as though it is just the farmer who has all of these faults. We must not forget the city man; he is just as likely to let his wife climb into a buggy with a baby in her arms as any farmer.

One would almost think that all of the farmers were mean and stingy. I will admit there are some, but do not judge the whole because of that few.

Speaking of old straw beds, I think if our friend will examine a few of our country homes, she will find just as many mattresses as in any other place, and not many beds of straw. There was a time, I suppose, when there was nothing else, but that time is long past. Perhaps our friend lived in the country at that time. If so, I would take great pleasure in piloting her through our homes now, and letting her see the great improvements.

JUNE ROSE.

Wentworth Co., Ont.

LETTER FROM QUEBEC.

Dear Junia,—Having just been reading M. S.'s letter in "The Farmer's Advocate" of May 23rd, I feel called upon to take up the cudgel in defence of our Province, as well as that of Ontario, and lastly, of our men and boys. I am glad to say we have none of as bad a type here, to my knowledge, as where M. S. lives. I have lived in different parts of

Ontario and Quebec, both on farms and in towns. I am speaking from experience also, as I have been a farmer's wife for about fifteen years, and it is my opinion that the situation M. S. describes is covered by one word—mismanagement—of a woman's home and husband. Do not think for a moment I refer to the disgusting form of management called "bossing" or "henpecking"; the diplomatic and persevering wife can have her own way, to a very great extent, without giving that impression. A man hates to be ordered around by a woman, but that is unnecessary; if she first decides what she needs, and they can afford it, a man thinks far more of a woman if she insists in a quiet, yet decided manner, upon getting such things.

To be sure, a great deal depends upon the man, and here one must also "manage" wisely, and not marry in haste and repent at leisure. I am sure I should know such a man as M. S. describes, he he ever so gallant, for a man or woman's nature will not change perceptibly by a change from country to town, or vice versa. I always maintain that a man is pretty nearly what his wife makes him. If I cared enough for any farmer to marry him, I would not worry about the consequences.

I think, also, if a woman were a good manager of the home, she would not have her clothes on the line at church time, or when she made up her mind to go to town.

As for conveniences, I think the most of the farmers around here have all they can well afford, and save anything. All farmers' wives know that it is by the outside improvements the money is made; still, I think there are not more than two or three houses near here without a food-chopper, and from one to half a dozen clothes-closets. We also have other labor-saving devices in common use, such as carpet-sweepers, kitchen cabinets, and sewing and washing machines, bread mixers, and love, which, we are told, lightens labor. I have never yet seen a kitchen floor without paint or other finish—that I can remember.

As for sinks, most farmers here have them; also steel ranges, rural telephones, and one or more daily papers. As for mattresses, I would much prefer sleeping on a nice, clean, sweet-smelling bed of straw, than a mattress of doubtful filling.

I do not think there is any question about the eggs around here; the women have always claimed them. I know I should not feed and care for young chickens all summer, and be foolish enough not to assert my right to them.

Some people seem to think a little extra outward polish makes a gentleman. Personally, I can never find any cause for complaint. I never have to get in or out of a carriage alone when men are around. Too many women, anyhow, never think to say "Thank you," when a man goes out of his way to wait upon them.

Now, Dear Junia, I must apologize for taking so much of your valuable time and space, but I could write upon this subject "till further orders."

Wishing your Ingle Nookers every success, I will sign myself,

HAYSEED BETTY.

River Beaudette, P. Q.

LETTER FROM DUNDAS CO.

Dear Junia,—In the Ingle Nook Department of "The Farmer's Advocate" of May 23rd, appeared a letter from a "Western Lassie" regarding her unhappy experience of farm life in Norfolk Co., Ont., also another along the same line from "M. S." P. Q.

It would not be right to let these pass without a reply from one who has had a happy experience of farm life. I have lived most of my life on a farm, and have thoroughly enjoyed it. My early years were spent on my father's farm, while I was taught to do all kinds of farm work. My education for a teacher was received in a town, and my Normal training in a city. For six years I taught in a rural school, then married a farmer, and, having spent more than ten years as a farmer's wife, I can say I would not exchange my life here for that of any woman in village, town or city.

The statement that "the farmers of Ontario are not social," does not apply to this locality, nor to any neighborhood in our county. The people here are very



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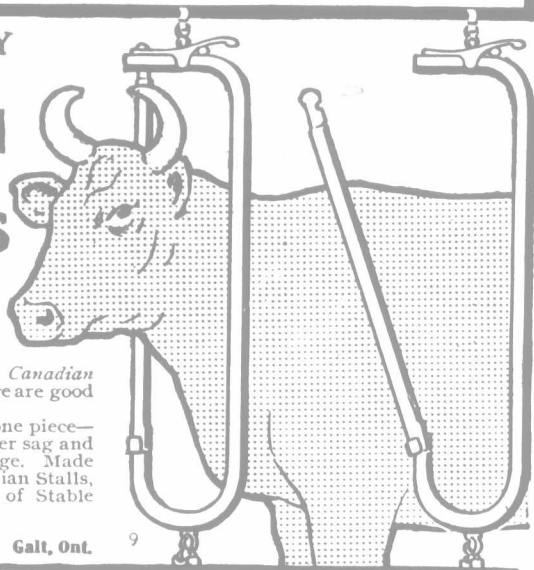
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sociable, are always ready to welcome new neighbors, and in the winter, when the men are not so busy, visit to and fro a great deal, having such social functions as wedding anniversaries, christening parties, farewells to those moving away, receptions for new-comers, etc., where all the neighbors meet and have a real good time. During any time of the year you may find the ladies paying and receiving calls, which I am sure they enjoy better than the town ladies, with all their formality.

The conditions mentioned in the letter of "M. S." do not exist in our neighborhood, as regards baths, mattresses, clothes-closets, etc. Our homes here, on the whole, are as beautiful and well furnished as any in town.

The houses are fitted with all the modern conveniences,—very few but what have telephones. Some places near here have rural mail delivery, and we expect to have it through here this year. Our farmers take at least one or two daily papers, besides many weekly papers and magazines, so that part of our leisure time is employed in reading, for the exercise and development of our intellectual powers, and to keep in touch with all that is going on. Many good agricultural papers are found in our homes, such as "The Farmer's Advocate," Weekly Sun, etc., so we have ample opportunity to keep ourselves well informed along our own line of work. It is neglect of all this intellectual recreation that makes farm-work a drudgery to some. They are always looking down.

Think, too, of our having our own fresh milk, cream, butter and eggs; also all the vegetables we wish to raise, besides berries, cherries, currants, plums, and apples. There is a poem that says: "The farmer feeds them all," and it is certainly true. When the town people want a good meal they know where to come.

I think "M. S." must have been writing about some place away back in the woods. She would find things entirely different were she to come up and visit some of us in good old Dundas County.

A PLAIN FARMER'S WIFE.

Dundas Co., Ont.

RE SCHOOL DRESSES.

We have just taken your paper a few months, but are very much pleased with it. I would like some information on a wardrobe for Guelph Macdonald Institute in September. Could you tell me, through your paper, about how many dresses and what kind I would need for a three months' course in Domestic Science? I do not want to get anything I can get along without, but would like to have enough.

ENQUIRER.

Hastings Co., Ont.

A few years ago I spent two days at Macdonald Hall, Guelph, and the girls told me then that very few clothes were necessary while attending the Institute, just some shirt-waists and a couple of plain skirts for everyday wear, with one pretty party dress, and a "best" costume for church, etc. This last might be a suit with silk waist to match, or a one-piece dress with short coat to match, or with a long, separate coat. Especial dresses to wear while cooking are needed, but you had better write directly to Miss Watson in regard to these. Address, "Miss M. U. Watson, Macdonald Institute, Guelph, Ont."

We shall try to publish some designs for evening dresses at an early date.

MUD STAINS.

Could you please tell me how to take mud stains out of a silk and wool gloria (cream)? I purchased some in the city, and my parcel came out on a rainy day, and on the way home the parcel got water-soaked, rubbed on the bottom of the wagon, and, of course, got stained a little. I tried gasoline, but it did not take it all out, so I thought that I would ask advice from the paper.

MRS. I. K.

York Co., Ont.

I am afraid you will find the mud stains very hard to remove, the fact that the material is of silk and wool only increases the difficulty. Gasoline would be of no use, as it is a solvent, and the mud would dye the silk garment. If I were you, I would send the piece of goods to a professional cleaner, who would probably send it back as good as

new. If he can do nothing with it, the only solution of the difficulty seems to be to have the material dyed.

RE A YOUNG GIRL'S DRESS.

Dear Junia,—Would you kindly answer a few questions for me? A girl, twelve years old last April, is five feet in height, and weighs one hundred and twenty-six pounds. How should she wear her hair, and how long should she wear her dresses?

SUBSCRIBER.

Elgin Co., Ont.

The prettiest way would be to part it in the center, twist it in loose puffs above the ears, then tie it at the back with a ribbon bow, letting the hair then hang down the back in one large, loose curl. Since the girl is rather tall and stout, she might wear her skirts almost to her shoe-tops.

ROSE-LEAF BEADS.

Dear Junia,—In one of last year's issues of your paper, there was an item telling how to make beads of rose leaves. It was too late for our roses, and, although we always save "The Farmer's Advocate," I cannot find the one I am after, so if possible, I would like you to give it to me again. Thanking you in advance.

YOUNGSTER.

Kent Co., Ont.

Save the petals of the roses as they fall off the bushes and pound them, or run them through the meat-grinder while fresh, then put the pulp in a vegetable dish and cover closely. Add more day by day for three days, running the whole through the grinder each day. You may collect the petals in this way for nine days, if you have not enough pulp by the end of the third day. Now, the whole will be resolved into a soft, black mass. Make it into balls, and string them on hat-pins to dry. After several days, when the beads are quite dry and hard, pull them off the hat-pins and string them on cord, putting small colored or silver beads between if you choose. If you wish the beads to be glossy, put a little vaseline on your fingers when moulding them, and, in any case, make the beads twice as large as you want them to be, as they shrink greatly in drying.

Strawberries and Cherries.

Canned Cherries.—Pit the cherries, put in a granite kettle and let come to a boil. In another kettle make a syrup of sugar and water,—not too rich. When the cherries come to a boil, skim them out into the syrup, let boil again, and seal. To the juice left in the first kettle add sugar, boil down one-half, strain, bottle, and use for a summer drink, for sauces, water-ice, or mince-meat.

Strawberry Pancake.—Make three large pancakes of a batter made of yolks 3 eggs, 1½ cups flour, 1 teaspoon salt, 2 cups water; beat batter five minutes, then beat in stiffly-beaten whites of the eggs. Brown the pancakes nicely on both sides, spread thickly with strawberries crushed with sugar, sprinkle top with powdered sugar, and serve.

Sun-cooked Strawberries.—Take equal measures fruit and sugar. Add enough water to the sugar to dissolve it, and boil until the syrup is thick. In another kettle let the berries barely come to a boil in their own juice, then add them to the boiling syrup. Let simmer fifteen minutes without stirring. Skim out the berries and place in shallow dishes under netting in the sun for four or five hours, re-heat the syrup, pour over the berries and seal in jars. Cherries may be done the same way. Some people put the fruit out for three days before sealing, taking it in at night. Fruit done in this way is of good color, but hot sunshine is necessary.

Stewed Cherries.—Pick and wash 1 quart cherries. Cover with enough boiling water to cook them. When half-done, add three-fourths large cup of sugar, and cook slowly until syrup is clear and thick.

Strawberries.—Dip the strawberries in thick sugar syrup, or in beaten white of egg, then in powdered sugar. Arrange in a glass dish decorated with strawberry leaves.

Rice and Strawberries.—Put 1 cup well-washed rice into 2 cups boiling water,

add 1 teaspoon salt, and cook in a double boiler 30 minutes. Add 1 pint milk and a heaping tablespoon butter, and boil again. Let stand until cold. Serve with a dressing made as follows: One cup powdered sugar, 1 tablespoon butter beaten to a cream; add well-beaten white of 1 egg, then 1 cup fresh strawberries.

Cherry Pie.—Line a pie plate with pastry, fill with stoned cherries, stewed, sweetened, and thickened with flour or cornstarch. Put on top crust, and bake. When making pie of this kind, make the upper round of pastry larger than top of pie plate, raise the under pastry along the edge, and tuck the edge of the upper round under it, then press-down a little about the edge. This helps to prevent escape of the juice, and makes it easier to remove the pie from the pie-pan.

Cherry or Strawberry Cake.—Cream together 1 cup butter, 2 cups sugar. Beat with them 3 beaten eggs, then beat in 1 cup sweet milk. Last of all beat in 3 cups flour sifted with 1 teaspoon cream tartar and $\frac{1}{2}$ teaspoon soda. Bake in two tins. When done, split each cake. Pile the whole in four layers with crushed cherries or strawberries, and sugar between. Put more berries on top. Serve with rich cream poured over.

Strawberry and Rhubarb Jam.—One lb. rhubarb cut in bits to 1 quart berries and $\frac{1}{2}$ lbs. sugar. Boil slowly in a granite kettle. When it will jelly thinly it is done. Pour into tumblers, and when cool cover with melted paraffin. Raspberries or pineapple may be used instead of the strawberries.

The Scrap Bag.

FLY POISON.

Boil quassia chips in water until a strong decoction is obtained, sweeten well, and set about in saucers. This is quite harmless to human beings, but death to flies.

ROSE JARS.

Put the rose petals in a basket or a mosquito-netting bag, and hang it in the shade in the fresh air so that the petals will dry thoroughly. When they are quite dry, add four drops oil of lavender, one or two drops bergamot, five drops attar of rose, also some helitrope sachet powder if you wish. Mix well, and put in the rose jars. Keep closely covered, removing the cover only when it is desired to disperse a delicate perfume through the room.

PERSPIRATION STAINS.

Always wear waterproof shields to prevent perspiration stains. If, in spite of this precaution, perspiration should ooze through to your silk waist, try the following: Sponge the place with clear cold water, cover completely with powdered prepared chalk, let dry, then brush off. Another method, useful for removing perspiration from white silk, is the following: Mix chloroform and alcohol, equal parts, and rub the mixture on the stain, which should be placed over blotting paper.

TO MAKE SHOES LAST.

To make children's shoes last, coat the soles with three or four coats of copal varnish.

A FRECKLE REMOVER.

Mix lemon juice with one-half as much water. Rub on the freckles and leave half an hour, then wash off with water softened by boiling bran in it, a large handful to the pint. Do this every night, following up the treatment by rubbing on a little good cold cream.

MAKING UP COTTONS.

Shrink all cottons well before making them up. The easiest way is to soak them over night in clear rain water.

TO WASH PONGEE.

Wash in lukewarm soap suds, and rinse well. Never wring pongee; just press the water out gently with the hands. Hang on the line from the last water dripping wet, and when thoroughly dry, press out with a moderate iron.

SCORCHED SPOTS.

In case of scorching when ironing, dampen a little starch and cover the scorched place, then expose to bright sunshine for about two hours.

CHEAP SOAP.

"Success" gives the following method

by which 100 lbs. soap may be made for a dollar: Six lbs. potash, 4 lbs. lard, 4 ounces powdered resin. Mix all together and set aside 4 or 5 days, then put the whole into a cask containing 10 gallons warm water. Stir twice daily for 10 days, and the soap will be ready for use.

The Beaver Circle.

OUR JUNIOR BEAVERS.

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

The Little White Cloud.

(By Mariam Clark Potter.)

Oh, where can I find a little white cloud?
Tell me, bee in the clover.
Do they ever, you think, come down to drink,
When the heat of the day is over?
I'd tie one safe to the cherry tree
With a length of silver twine.
A glad little child I'd surely be
If a little white cloud were mine.

I do not wish for the larger ones,
With puffs and turrets and towers,
The kind that comes with the thunder-drum,
Bringing us flashes and showers,
But just a crisp little curling one
With a tint of pink or blue,
That would float in the breeze by the cherry trees,
As a pretty balloon would do.

And every morning I'd pull it down
To smooth a fluff or a wing,
I'd hold it tight in my arms a while,
Brushing the feathery thing;
I'd feed it dew from a hollyhock,
And when it had drunk to please,
With a tug on its string it would be away,
Climbing the glad little breeze.

But 'oh, if the clouds in the sky should call,
"Come back, little brother, again!"
If their poor little tears should fall down to earth
In sorrowing drops of rain!
If the silver-cloud mother should come at night,
In a fog-gown, trailing low,
To hunt for her child in our garden place,
I think I should let it go.

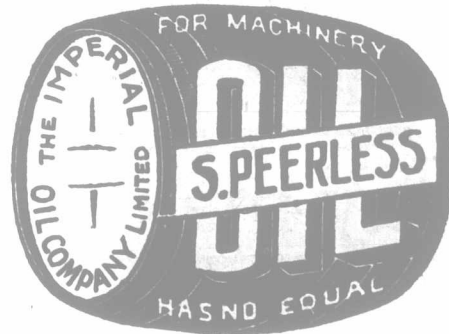
Junior Beavers' Letter Box.

Dear Puck and Beavers,—My father has taken "The Farmer's Advocate," and I like it fine. I like to go to school. When I get home I get "The Advocate" and read the letters. I have a baby brother, and a sister older than myself. My brother's name is Arnold, and my sister's name is Lillian. Well, as my letter is getting long, I guess I will close with some riddles.

What has ears and cannot hear?
Ans.—Corn.
What has an eye and cannot see?
Ans.—A needle.
NORA BROWN (age 8, Jr. II.).
R. R. No. 4, Aylmer West, Ont.

Dear Puck and Beavers,—Having seen so many nice letters in "The Farmer's Advocate" from the Beavers, I thought I would write and tell you about our farm. The name of it is Golden Grove. It contains eighty-four acres of land. My father raises barley, wheat, oats, corn, and hay. We have quite a few cherry, plum, pear, peach, quince, and apple trees; also strawberry, raspberry, gooseberry, black and red currant bushes, a few grape vines, and lots of bees.

We keep nine horses, eighteen head of cattle, fifty pigs, four sheep, and Brown Leghorn chickens. We live quite a little way from the road. There is a creek which runs through our place, which makes it very nice for skating in winter. There is a row of evergreen trees on each side of the driveway on the lawn, then a hedge across the front. We live one mile east of the town of Amherstburg, opposite the pretty summer resort, "Bob-lo" Island, and one-half mile from the public school. I go to school nearly every day. My teacher's name is Miss Hanlon. She is a very nice teacher;



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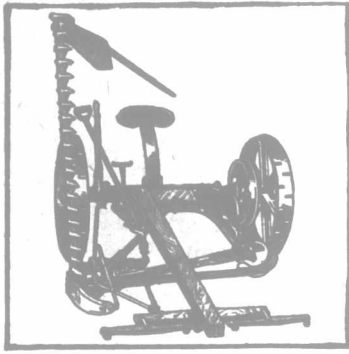
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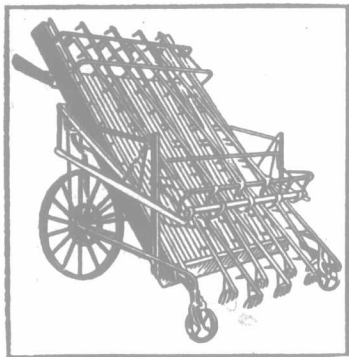
THERE'S money in Hay—if it does not cost too much to make it. The Dain Implements cut the cost of Hay-making to the lowest possible margin, because they are perfect in every detail. More than that they are built to endure—the farmers owning them declare that they are *practically indestructible*. It will pay you well to know all there is to know about *Dain Hay-making Helpers* before investing a dollar in any hay-making implement.



Here's the *Dain Vertical Lift Mower*—a machine that you couldn't smash under any sort of service. Before leaving our factories every *Dain mower is subjected to a tremendous test*—a test that would make a scrap iron of any ordinary implement. There's *no lost motion* about the Dain—the moment the horses move the knife begins cutting. The machine is built with surplus strength in every part, and so perfectly balanced that the draft is easy. Yet, we so build the Dain Mower that—in the rare event of an accident—an inexpensive part effects prompt repairs.

The *Dain All Steel Side Delivery Rake* is in a class by itself. Its triple set of teeth, turning slowly, put the hay in shape for curing without injuring leaves or stalks. It delivers the hay gently into a loose, fluffy, continuous windrow, so that the air and sun penetrate—it cures quickly and retains its full nutriment. Simply constructed and almost *break-proof*.

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with four sets of Roller Bearings, which decrease the draft to a minimum. But, get the details, they'll please you, and it will pay you to have them. Study the *Dain Line* before you outfit yourself with hay-making implements. You'll have better machinery and more money in the bank if you do so. Dain Implements are built to endure and to reduce friction—they are specially designed for simplicity, strength and money-making service.

N. B.—Write to-day and ask us to forward you complete details of any or all of the DAIN money-saving and money-making implements. Besides the implements mentioned, we manufacture the Success Roller, Bearing Manure Spreader, Hay Presses, Ensilage Cutters, etc.; and

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Dear Sirs,—In reply to yours of the 2nd, I would say that we found the calf feed very good, and liked it better than Oil Cake, which we had previously fed. We found that the calves thrived better on it than they did on Bilby's Cream Equivalent. Yours truly, J. USHER, Wicklow, Ont.

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MENTION "FARMER'S ADVOCATE."

the best one we have had for quite a while. I hope my first letter will be published. I will close, hoping it is not too long.

E. NORA GOLDEU
(Age 10, Jr. III.).

Amherstburg, Ont.

Dear Beavers,—This is my first letter to the Beaver Circle. I go to school and am in the Junior Second book. I live on a farm. I have a little calf, and I named it Bluebell. I like to read the Beaver Circle letters. I think I will close for this time.

HELEN FLANDERS (age 10).
Jerseyville, Ont., R. R. No. 1.

Dear Beavers,—My father has taken "The Farmer's Advocate" for a long time, and likes it very well. I have a mile and a half to go to school, and I am in the Junior Third Class. Our teacher's name is Miss McBain. I like her very well. I have two brothers; their names are Donald and Wesley. We have four horses and a colt. We have eleven head of cattle, and fifteen pigs. We have a peacock; we keep him in the barn all winter. I will close now, leaving room for the other Beavers.

GORDON McPHERSON
(Age 12 years, Jr. III. Class).
Holyrood, Ont.

Dear Puck and Beavers,—Although I have been reading the letters of your Circle for over a year, I have never written to you before. I live in York Township, on the Third Concession. I

have three brothers and no sisters. Just two of us go to school, my second youngest brother and myself. We have a mile and a half to go to school. Our teacher's name is Miss McClure. We all like her very much, and most of the scholars say that she is the best teacher that we've had.

We have good fun at school in summer playing tag, hide-and-go-seek, prisoner's base, antiover, and other games.

Perhaps some of the Beavers do not know how to play "antiover," so I guess I will tell them.

First choose two captains, who must choose sides. When the captains and sides are chosen, get a rubber ball. Each captain must take his own side and go and stand on separate sides of the schoolhouse. One captain must throw the ball over the schoolhouse roof to the other side. The ball will light on the ground and bounce. Whoever catches the ball must carry it around the side of the school and throw it at one of the players. The one whom the ball hits must join the opposite side to which he was on, and stay there until someone belonging to his own side comes around the corner and hits him with the ball. When one side wins all the players from the other, the game ends and that side wins.

I think I will close my letter now, as it is getting long, and I don't want to crowd others out.

LILLIAN McMILLAN
(Age 12, Class Jr. III.).
Fairbank, Ont., R. R. No. 1.

Dear Puck and Beavers,—This is my first

letter to the Beaver Circle. I go to school every day. I have a nice teacher. Her name is Miss Cooke. I have about a mile and a half to go to school. I have one pet; that is a collie dog. We call her Collie, too. She can haul my brother and me on a sleigh. I have a good time sliding in the spring on the crust. I think my letter is long enough. Good-bye.

WILLIE B. BUSTEED
(Age 11 years, Book III.).
Cross Point, Ont.

Dear Puck,—This is my first letter. I am seven years old. This is my first year at school. I have to walk; it is about one-half a mile. My father makes lots of sugar in the sugar season. We have one thousand maple trees. I gave my schoolmates a sugar party. I live one mile from Cowansville. I have one sister four years old, and one brother eight months. I will close now, wishing your Circle every success.

FRANCES RUITER (age 7).
Cowansville, Ont.

Dear Puck,—My father has taken "The Farmer's Advocate" for two years. I enjoyed reading other little girls' and boys' letters so much that I thought I would write one, too.

I have a cat named Biddy, and eleven little Plymouth Rock chickens.

I have about three-quarters of a mile to go to school. Our schoolhouse is painted white. Our teacher's name is Miss McKellar, from Dutton.

I live in Malden, which is about two miles from Lake Erie.

As my letter is getting long, I will close with a riddle:

Why is a hen the most profitable fowl on a farm?
Ans.—For every grain she gives a peck.

IRENE BEAUDION
(Age 10, Jr. II.).
North Malden, Ont.

Dear Puck and Beavers,—This is my first time to write to you. I have a little dog; his name is Chum. We had another little dog called Purp; he died last winter. Then we got little Chum. He will sit up to get something to eat. We have a great big collie dog; he will pull me in a cart. I have two sisters and four brothers. My four brothers and myself go to school. We live on the farm. I have a nice bow and arrow; it will shoot quite a piece. We have the rural telephone in our house. It is very handy.

I have to walk a mile and a half to school, and we play baseball and football at our school. About thirty go to our school. My teacher's name is Mr. Drury, and I like him very well. There is only one room in our school. I must close now. Bye-bye.

STANLEY LAUGHLIN
(Age 11, Jr. III.).
Belfountain, Ont.

Dear Puck and Beavers,—I guess I will tell you about my pets. I have a little fox terrier; I call him Bobbie, two cats, and a little colt called Billy. I have a mile to go to school. I like going very well. We are ten miles from Grand Valley, and a quarter of a mile from the post office. I guess my letter is getting long.

LLOYD COLBECK
(Age 10, Jr. III. Class).
Monticello, Ont.

Dear Puck and Beavers,—This is my first letter to the Beaver Circle. I would like to be a member very much. My father has taken "The Farmer's Advocate" for a long time, and we like it fine. I have a little sister, and her birthday was the 8th of April, and I have two brothers; one is four years old and the other is thirteen years old. I go to school every day. I like my teacher fine, and I am in the Second Book. The teacher's name is Miss Annis. I have to go half a mile to school. Well, I will close now, wishing the Beaver Circle all success.

FRANCES CRYDERMAN
(Age 9, Jr. II.).
Salina, Ont.

Dear Puck,—I enjoy reading the letters the other Beavers write. My father has taken "The Farmer's Advocate" for a number of years. I go to school every

day and have a mile to walk. My little sister's name is Anna. She was six years old on the 3rd of June, and she tells every person that her birthday is the same as the King's.

RETA BRETHEN (age 8, Book I).
Norwood, Ont.

Dear Puck and Beavers.—I thought I would write you a few lines. I go to school almost every day. Our teacher's name is Miss Griffith. I like her fine. I go one mile and a quarter. Christina is my school. My father takes "The Farmer's Advocate." I like to read it very much. We have three horses, Polly, Maud and Prince. We have the 'phone and daily mail. I have one sister five years old. Her name is Evelyn Runnalls, and we play together. I live in Caradoc Township.

CLIFFORD RUNNALLS
(Age 8, Part II).

Dear Puck and Beavers.—This is my first letter to the Beaver Circle. My father has taken "The Farmer's Advocate" for five years. I just got through reading the Beaver Circle, so I thought I would join in with you Beavers. I wrote a letter before and I sent it to the wrong place. I have two miles and a half to walk to school. We skip at school now. I will try and not make this letter too long. If it takes up too much paper, why, don't put it in. We have one cat, and we call her Rabby. She is a black and white cat.

We had an examination in writing on Friday. I will close, wishing the Beaver Circle every success.

I will give a few riddles:
As round as an apple, as busy as a bee, Prettiest thing you ever did see.
Ans.—A watch.

What song has no words? Ans.—The song the tea-kettle sings.

What is the difference between a gardener and a Chinaman? Ans.—One keeps the lawn wet, the other keeps the laundry.

When does a man rob his wife? Ans.—When he hooks her dress.

GLADYS FORTH (age 10 years).

Maple Lane. R. R. No. 2, Hamilton, Ont.

Dear Beavers,—My father has taken "The Farmer's Advocate" for a year and a half, and I enjoy reading the letters. I am glad it is spring now, and the birds are back again. I love to hear the birds singing, and love them anyway. I must tell you about last summer. I found a little nest away down in the deep, green grass, and I took it and put it up in an apple tree, but no birds came, though. I am glad there are nice long evenings. They are nice and breezy, too.

CLAIRE SPROAT
(Age 7, Sr. First).

Tuckersmith, Ont.
Perhaps the nest belonged to a bird that builds on the ground, Claire.

RIDDLE.

When do four and four not make eight?
Ans.—When they make 44. Sent by Katie Cryderman.

Dear Junior Beavers, all of the letters sent in April have not been published yet. Please do not write any more to the Beaver Circle until I tell you to do so. You see, little Beavers, we must "catch up" somehow, and if you write letters now, they will just have to wait over for weeks and weeks, and you will not like that.

Dear Puck and Beavers.—I was looking in "The Farmer's Advocate" to see if I could see my brother's letter published, so I thought I would write at once. During the Easter holidays my brother and I tapped a few trees. We had fun in collecting the sap, making taffy and maple sugar. Sometimes we drank the sap.

We have a little pup that looks like a muskrat. We have great fun feeding him and making him beg for his share. I have no interest in birds, only in dogs, cats, pigeons, rabbits, etc. I own one sheep. My brother's sheep has two lambs, and he has to feed them with clover and alfalfa. I read your piece on Easter gifts. I tried to color some in

coffee and I succeeded in it. I trained my little pup during the Easter holidays. I have made a little garden. My father sent to Simmer's in Toronto for seed, and I got some seeds that are worth seventy-five cents. In the package I got seeds of squashes, muskmelons, cabbage, beets, onions, peas, beans, cress, and a package of mixed flower seed. The sun is shining bright, and I think I will go to the woods. I will hope to see this in print, and close for this time.

Why does a squirrel run over a mountain? Ans.—Because he can't go through it.
JOHN KIEFFER
(Age 12, Jr. IV.).

Formosa, Ont.

Dear Puck and Beavers.—This is my first letter to your Circle. My father has taken "The Farmer's Advocate" for fifteen years. I like to read the letters of the Beavers.

I have a dog which I call Jack; he is a collie. He is a good cow dog. We have two colts, which I call Frank and Nell; we just broke them to lead.

We live two miles from our post office, which is Codrington. We have one hundred acres of land which we work, and fifty acres of pasture land.

We have a creek at the front of our place which we skate on in winter. I have a brother and a sister. As my letter is getting long, I will close, hoping this will escape the w-p. b.

MILLIE A. GOODFELLOW
(Age 10, Sr. III.).

Codrington, Ont.

Dear Puck and Beavers,—I wrote you a letter about a month ago, but didn't see it in "The Farmer's Advocate." I saw in "The Farmer's Advocate" on May 16, 1912, the prizewinners of the Drawing Competition. Are you going to send the Beavers' prizes? I planted in my garden the following: Balsams, nasturtiums, yellow marguerite, foxglove, gailardia, parsnips, cabbage, radish, lettuce, and am going to plant popcorn and garden peas. My plot is two feet wide and six feet long.

In the fall I am not going to get a photo taken, but I will write you a composition and would like if you would print it in "The Farmer's Advocate." My father's name is Charles R. Robson. We have taken the paper five or six years. Wishing the Beavers much success.

ROSE ROBSON (age 12 Sr. II.).

Telfer P. O., Ont.

Of course, we give prizes to all prizewinners, Rosie. Did you not see the announcement, a few weeks ago, of the cash prizes that are to be given in the Garden Competition. You should try to make arrangements to have a snapshot of your garden taken in the fall; then you could enter the Beaver Circle Garden Competition. Surely someone in your part of the country has a kodak. All who enter the Garden Competition must send photos as well as essays.

News of the Week.

The British dock strike outside of London has collapsed.

A proclamation declaring Berlin, Ont., to be a city, was read at midnight, June 10th.

The London (Ont.) Methodist Conference adopted a resolution condemning the growing of tobacco by Methodist farmers.

The Casey Cobalt silver mine, on June 13th, shipped the richest car of ore that has ever come out of Northern Ontario. It was valued at \$132,235.38.

Ten railway men lost their lives in two collisions that occurred in Canada last week, one at Corana, Sask., the other at Nepigon.

Regulations have been framed at Washington, D. C., which will compel all ocean steamers entering American ports in future, to carry a full equipment of life-boats.

Mr. J. E. Whitson, of the Provincial

Surveys Department of Ontario, has been appointed to take charge of the initial steps in connection with the opening up and further development of the North country.

According to the Ontario Government's plan in regard to bilingual schools, four model schools for the training of teachers for English-French schools are to be established,—at Vankleek Hill, Sandwich, Ottawa, and Sturgeon Falls.

Lord Loreburn, because of his opposition to recent radical legislation, resigned as Lord High Chancellor of Great Britain. Viscount Haldane was appointed to succeed him, Col. John Seeley succeeding him, in turn, as Secretary of State for War.

It is understood that Mr. M. J. O'Brien, the Renfrew millionaire, will, in the near future, build a large pulp mill on Quinze Lake, the first large one in the Northern country. Quinze Lake is near the border, between Quebec and Northern Ontario.

Of the 76 medals, scholarships, and prizes awarded recently at Toronto University, 33 went to young women. The most notable award, the Governor-General's gold medal, was won by Miss Helen McMurchy (fourth year, arts), who has led her class in philosophy for the year. The James Loudon gold medal in physics, also a silver medal in mathematics and physics, were won by Miss C. Clinkscale.

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make the most delicious bread you ever tasted. Confirm this statement by using it in your next bread baking. All grocers keep it in 5c. packages containing six cakes.

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Practically new, for sale, cheap, on terms to suit. Would take lumber in exchange. Now in use at our factory.
ROBERISON HARDWARE & LUMBER CO.
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birthday were the Premiers of Manitoba and British Columbia, R. P. Roblin and Richard McBride, who received the Order of K. C. M. G.; Joseph Dubuc, late Chief Justice of Manitoba, who was created Knight Bachelor; Prof. J.

Canadian Industrial Exhibition
WINNIPEG

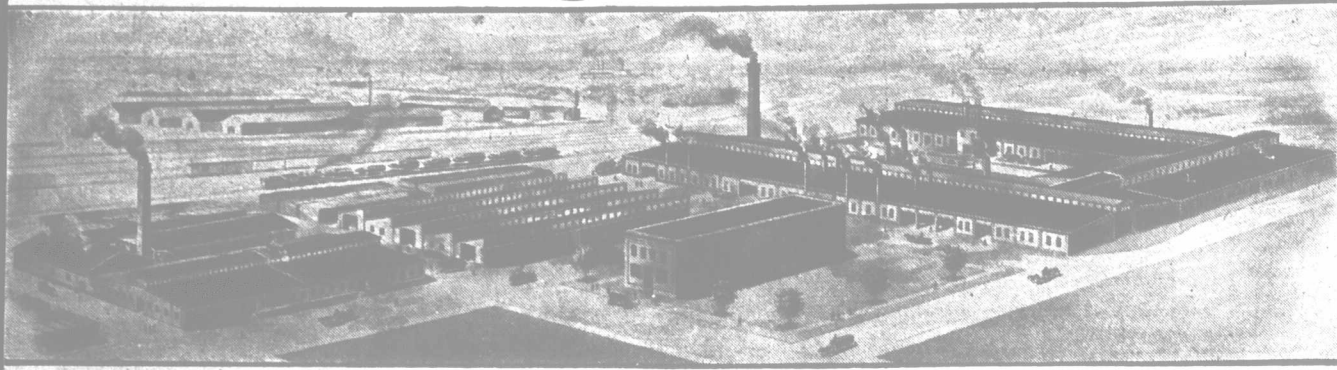
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The cut shows the big plant of the George White & Sons Co., Ltd., manufacturers of threshing machinery and engines. It is situated in London, Ontario, right beside the main through line of the Grand Trunk Railway. If you were to examine the roofing of this big plant carefully you would see that even the Boiler House and Foundries were covered with

BRANTFORD ROOFING

Now—before you decide on the roofing for your new building, before you allow your architect to specify any roofing, before you invest a dollar in a new roof for the old building—consider the plain facts.

The roofing on the Boiler House and Foundries of this big plant are subjected to the fiercest tests—not for a day, or a month, but for year after year. Heat and penetrating acids that would simply devour any ordinary roofing attack these roofs from within. Volleys of live cinders and red hot sparks, flung from the funnels of passing trains, batter them continuously from without.

Add to this the biting frosts of winter—gale-driven rains, sleet and snow and the almost relentless heart-drawing rays of summer suns and you are bound to conclude that this roofing is practically imperishable. BRANTFORD ROOFING is the only roofing manufactured that can successfully defy this extreme test—a continual assault of roofing's most relentless foes.

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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.

EXPERIENCED FARM HAND WANTED—Good wages to first-class man; no other need apply. W. P. Sparling, Anderson, Ont.

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WANTED—At once, a good farm hand. Apply to Ernest Jones, Port Stanley.

200 ACRES, Middlesex County. Fine soil for all crops; perfect water supply; grand buildings throughout; good roads; low taxes; schools, churches, stores, mills, factories and station very close. London, ten miles; Ingersoll, nine; Dorchester, one mile. Every convenience there. Milk selling at \$1.30 per cwt. Price right. Early possession. Must be seen to be appreciated. Easy terms. T. N. Way, Dorchester Station, Ontario.



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EGGS—S.-C. White Leghorn, heavy layers and prizewinners, 75c. per 15. A hatch guaranteed; \$3.50 per 100. Geo. D. Fletcher, Binkham, Ontario, Erla Sta.

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WANTED—A peacock, must be nice bird. Reply, stating price and particulars to Dave A. Sturton, Ailsa Craig, Ontario.

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The roses make the world so sweet, The bees, the birds have such a tune, There's such a light and such a heat And such a joy this June.

—George Macdonald.

Junior Clerks Wanted FOR A CANADIAN BANK

Young men 16 to 19 years of age, and of good character wanted. Prefer those who have had a year or more in high school. Salary at start \$300. Increases yearly if satisfactory. Living allowance to junior clerks in large cities away from home \$100. Living allowance to all appointed to branches west of Lake Superior \$200. Apply in own handwriting, to Inspector, Room 1,002, Lumsden Building, Toronto.

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A small amount of cash will enable you to take possession of this big, well located New York farm, with its full equipment and steady immediate income; 120 acres smooth, nearly level fields, spring-watered pasture for 25 cows, large quantity wood and timber; variety of fruit; 10-room house; barn 32x76, basement; running water in barnyard; several other outbuildings; near village, 3 1/2 miles to R. R. station, eight miles to city; owner unable to care for it; throws in 15 cows, two horses, hog, 30 hens, all farming machinery and some crops. If taken now everything goes for \$4,500, small cash payment, balance 5 per cent. Further information and travelling directions to see this and other splendid dairy farms in a great dairy country, page 9, "Strout's Farm Catalogue 35", copy free. Station 2415, E. A. Strout Farm Agency, 47 West 34th Street, New York.

Teacher—What useful article do we get from the codfish, Johnny?

Johnny—Cod liver oil.

Teacher—That's right. Now, Tom, tell me what we get from the seal.

Tom—Sealing wax.

The Banffshire Journal of Scotland has note of a cow fifteen years old which has just given birth to twin calves. She is said to be the mother of eighteen in all, having on five occasions given birth to twins, the last three times in succession.

M. Macoun, Assistant Botanist and Naturalist, Dominion Department of Mines, and John McDougald, Commissioner of Customs, created C. M. G.; and W. H. Walker, Dominion Department of External Affairs, who received Imperial Service Order.

The Provincial Government of Ontario has plans afoot for the promotion of better health conditions in the Province. It is to be divided into seven "Health" districts, with centers at London, Palmerston, Peterboro, Kingston, North Bay, and Fort William, each district to be under supervision of a salaried officer, who will be required to give all his time to the service of public health, and will be required to qualify in chemistry, bacteriology, problems of water and sewage, epidemiology, and all other matters pertaining to the service. It is hoped, by this system, to inaugurate a general campaign for improved sanitary conditions, and the greater restriction and control of contagious diseases.

Germany's answer has been given to the statement made by Mr. Winston Churchill, First Lord of the British Admiralty, that the British pace of naval construction must depend upon that of Germany. Under the naval estimates adopted by the Budget Committee of the Reichstag, it has been announced that "15,000 men are to be added to the personnel now in service, raising it from 65,000 to 80,000," also that "when full effect has been given to the present proposals, the German navy will possess 61 dreadnaughts." To meet the situation, the £6,500,000 of the surplus, held back by Mr. Lloyd-George, in his budget for the year, in consideration of the possibility of just such a contingency, will be called into requisition.

"Thorns Have Roses."

It isn't so much the way things are As the way you look at a thing; There's always the notes of a merry song For the voice that is ready to sing. And "Roses have Thorns!" is a stupid cry, For though it may all be so, I think we would better be telling the world That Thorns have Roses, you know. We cannot expect to live our lives From all that is bitter apart, But each one knows when he's felt a thorn From the pain it has left in his heart. He doesn't need us to tell him it's there Or murmur a maxim of woe; We'd better be singing a psalm of hope. For Thorns have Roses, we know. —Florence J. Boyce, in Park's Magazine.

Spencer a Severe Critic.

The Times publishes advance extracts from the autobiography of Herbert Spencer, which give interesting and curious remarks made by the philosopher. For example he says:—"After reading six books of the Iliad I felt that I would rather give a large sum than read to the end," and "after a perusal of Ruskin's 'Stones of Venice' I have lost all faith in Ruskin's judgment; doubtless he has a fine and eloquent style, but he has uttered multitudinous absurdities." Referring to Carlyle, Spencer says that "he either could not or would not think coherently." The philosopher expresses admiration for George Eliot, both physically and intellectually, but says the report which was current that he was in love with and intended to marry her was untrue.

She was a bright girl, and her escort, who was also her intended, was delighted to find how quickly she grasped the points of the game. She got on so well that he ventured a light witticism on the subject. "Baseball reminds me of the household," he remarked; "there's the plate, the batter, the fowls, the flies, etc." "And it reminds me of marriage," she retorted; "first the diamond where they are engaged, then the struggles and the hits, then the men going out, and, finally, the difficulty they have in getting home." And he sat and thought.

"Keep Sweet and Keep Movin'."

By Robert J. Bourdette.

Homely phrase of our Southland bright—
Keep steady step to the drum of the drum;
Touch to the left, eyes to the right—
Sing with the soul though the lips be dumb.

But
"Keep sweet and keep movin'."

Sorrow will shade the blue sky gray—
Gray is the color our brothers wore;
Sunshine will scatter the clouds away;
Azure will gleam in the skies once more.

Just
"Keep sweet and keep movin'."

Hard to be sweet when the throng is dense,
When elbows jostle and shoulders crowd;
Easy to give and to take offence
When the touch is rough and the voice is loud;

"Keep to the right!" in the city's throng;

"Divide the road" on the broad highway;

There's one way right when everything's wrong;

"Easy and fair goes far in a day."

Just
"Keep sweet and keep movin'."

The Scarlet Pimpernel.

A STORY OF ADVENTURE.

By Baroness Orczy.

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(Continued from last week.)

CHAPTER XXVI.

The Jew.

It took Marguerite some time to collect her scattered senses; the whole of this last short episode had taken place in less than a minute, and Desgas and the soldiers were still about two hundred yards away from the "Chat Gris."

When she realized what had happened, a curious mixture of joy and wonder filled her heart. It all was so neat, so ingenious. Chauvelin was still absolutely helpless, far more so than he could even have been under a blow from the fist, for now he could neither see, nor hear, nor speak, whilst his cunning adversary had quietly slipped through his fingers.

Blakeney was gone, obviously to try and join the fugitives at the Pere Blanchard's hut. For the moment, true, Chauvelin was helpless; for the moment the daring Scarlet Pimpernel had not been caught by Desgas and his men. But all the roads and the beach were patrolled. Every place was watched, and every stranger kept in sight. How far could Percy go, thus arrayed in his gorgeous clothes, without being sighted and followed?

Now she blamed herself terribly for not having gone down to him sooner, and given him that word of warning and of love which, perhaps, after all, he needed. He could not know of the orders which Chauvelin had given for his capture, and even now, perhaps...

But before all these horrible thoughts had taken concrete form in her brain, she heard the grunting of arms outside, close to the door, and Desgas' voice shouting "Halt!" to his men.

Chauvelin had partially recovered, his sneezing had become less frequent, and he had struggled to his feet. He managed to reach the door just as Desgas' knock was heard on the outside.

Chauvelin threw open the door, and be-

fore his secretary could say a word, he had managed to stammer between two sneezes—

"The tall stranger—quick!—did any of you see him?"

"Where, citizen?" asked Desgas, in surprise.

"Here, man! through that door! not five minutes ago."

"We saw nothing, citizen! The moon is not yet up, and..."

"And you are just five minutes too late, my friend," said Chauvelin, with concentrated fury.

"Citoyen... I..."

"You did what I ordered you to do," said Chauvelin, with impatience. "I know that, but you were a precious long time about it. Fortunately, there's not much harm done, or it had fared ill with you, Citoyen Desgas."

Desgas turned a little pale. There was so much rage and hatred in his superior's whole attitude.

"The tall stranger, citizen—" he stammered.

"Was here, in this room, five minutes ago, having supper at that table. Damn his impudence! For obvious reasons, I dared not tackle him alone. Brogard is too big a fool, and that cursed Englishman appears to have the strength of a bullock, and so he slipped away under your very nose."

"He cannot go far without being sighted, citizen."

"Ah?"

"Captain Jutley sent forty men as reinforcements for the patrol duty: twenty went down to the beach. He again assured me that the watch has been constant all day, and that no stranger could possibly get to the beach, or reach a boat, without being sighted."

"That's good. Do the men know their work?"

"They have had very clear orders, citizen: and I myself spoke to those who were about to start. They are to shadow—as secretly as possible—any stranger they may see, especially if he be tall, or stoop as if he would disguise his height."

"In no case to detain such a person, of course," said Chauvelin, eagerly. "That impudent Scarlet Pimpernel would slip through clumsy fingers. We must let him get to the Pere Blanchard's hut now; there surround and capture him."

"The men understand that, citizen, and also that, as soon as a tall stranger has been sighted, he must be shadowed, whilst one man is to turn straight back and report to you."

"That is right," said Chauvelin, rubbing his hands, well pleased.

"I have further news for you, citizen."

"What is it?"

"A tall Englishman had a long conversation about three-quarters of an hour ago with a Jew, Reuben by name, who lives not ten paces from here."

"Yes—and?" queried Chauvelin, impatiently.

"The conversation was all about a horse and cart, which the tall Englishman wished to hire, and which was to have been ready for him by eleven o'clock."

"It is past that now. Where does that Reuben live?"

"A few minutes' walk from this door."

"Send one of the men to find out if the stranger has driven off in Reuben's cart."

"Yes, citizen."

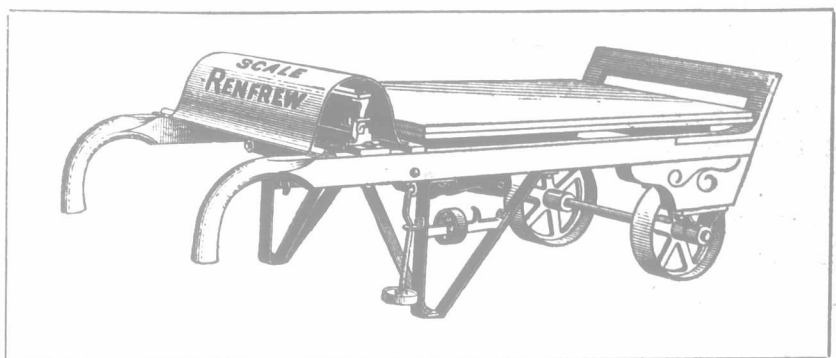
Desgas went to give the necessary orders to one of the men. Not a word of this conversation between him and Chauvelin had escaped Marguerite, and every word they had spoken seemed to strike at her heart, with terrible hopelessness and dark foreboding.

She had come all this way, and with such high hopes and firm determination to help her husband, and so far she had been able to do nothing, but to watch, with a heart breaking with anguish, the meshes of the deadly net closing round the daring Scarlet Pimpernel.

He could not now advance many steps, without spying eyes to track and denounce him. Her own helplessness struck her with the terrible sense of utter disappointment. The possibility of using the slightest use to her husband had become almost nil, and her only hope rested in being allowed to share his fate, whatever it might ultimately be.

For the moment, even her chance of ever seeing the man she loved again, had become a remote one. Still, she was determined to keep a close watch over his movements, and a vague hope filled her heart.

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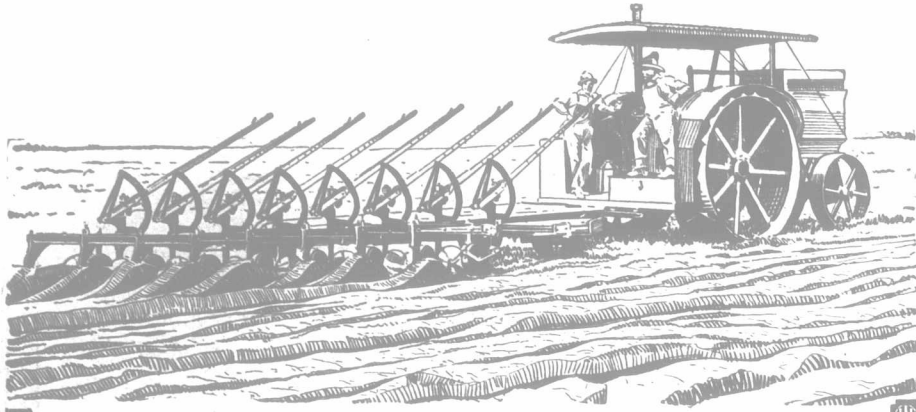
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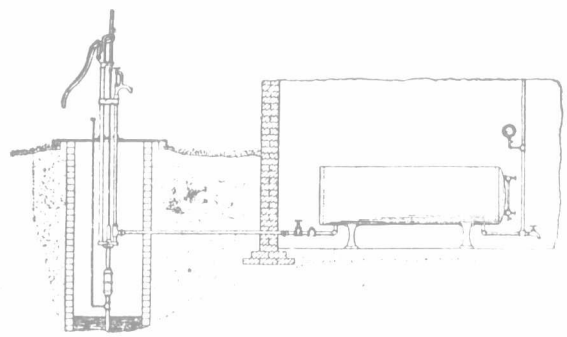


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THE HELLER-ALLER CO., WINDSOR, ONTARIO

that whilst she kept Chauvelin in sight, Percy's fate might still be hanging in the balance.

Desgas had left Chauvelin moodily pacing up and down the room, whilst he himself waited outside for the return of the man, whom he had sent in search of Reuben. Thus several minutes went by. Chauvelin was evidently devoured with impatience. Apparently he trusted no one; this last trick played upon him by the daring Scarlet Pimpernel had made him suddenly doubtful of success, unless he himself was there to watch, direct and superintend the capture of this impudent Englishman.

About five minutes later, Desgas returned, followed by an elderly Jew, in a dirty, threadbare gaberdine, worn greasy across the shoulders. His red hair, which he wore after the fashion of the Polish Jews, with the corkscrew curls each side of his face, was plentifully sprinkled with grey—a general coating of grime about his cheeks and his chin gave him a peculiarly dirty and loathsome appearance. He had the habitual stoop, those of his race affected in mock humility in past centuries, before the dawn of equality and freedom in matters of faith, and he walked behind Desgas with the peculiar shuffling gait, which has remained the characteristic of the Jew trader in continental Europe to this day.

Chauvelin, who had all the Frenchman's prejudice against the despised race, motioned to the fellow to keep at a respectful distance. The group of the three men were standing just underneath the hanging oil-lamp, and Marguerite had a clear view of them all.

"Is this the man?" asked Chauvelin.

"No, citizen," replied Desgas, "Reuben could not be found, so presumably his cart has gone with the stranger; but this man here seems to know something, which he is willing to sell for a consideration."

"Ah!" said Chauvelin, turning away with disgust from the loathsome specimen of humanity before him.

The Jew, with characteristic patience, stood humbly on one side, leaning on a thick knotted staff, his greasy, broad-brimmed hat casting a deep shadow over his grimy face, waiting for the noble Excellency to deign to put some questions to him.

"The citizen tells me," said Chauvelin peremptorily to him, "that you know something of my friend, the tall Englishman, whom I desire to meet. . . . Morbleu! keep your distance, man," he added hurriedly, as the Jew took a quick and eager step forward.

"Yes, your Excellency," replied the Jew, who spoke the language with that peculiar lisp, which denotes Eastern origin. "I and Reuben Goldstein met a tall Englishman, on the road, close by here this evening."

"Did you speak to him?" "He spoke to us, your Excellency. He wanted to know if he could hire a horse and cart to go down along the St. Martin Road, to a place he wanted to reach to-night."

"What did you say?" "I did not say anything," said the Jew in an injured tone, "Reuben Goldstein, that accursed traitor, that son of Belial . . ."

"Cut that short, man," interrupted Chauvelin, roughly, "and go on with your story."

"He took the words out of my mouth, your Excellency; when I was about to offer the wealthy Englishman my horse and cart, to take him wheresoever he chose, Reuben had already spoken, and offered his half-starved nag and his broken-down cart."

"And what did the Englishman do?" "He listened to Reuben Goldstein, your Excellency, and put his hand in his pocket then and there, and took out a handful of gold, which he showed to that descendant of Belzebub, telling him that all that would be his, if the horse and cart were ready for him by eleven o'clock."

"And, of course, the horse and cart were ready?"

"Well! they were ready in a manner, so to speak, your Excellency. Reuben's nag was lame as usual; she refused to budge at first. It was only after a time and with plenty of kicks that she at last could be made to move," said the Jew with a malicious chuckle.

"Then they started?" "Yes, they started about five o'clock ago. I was disgusted . . ."

ger's folly. An Englishman too!—It ought to have known Reuben's nag was not fit to drive."

"But if he had no choice?"

"No choice, your Excellency?" protested the Jew, in a rasping voice, "did I not repeat to him a dozen times that my horse and cart would take him quicker, and more comfortably than Reuben's bag of bones. He would not listen. Reuben is such a liar, and has such insinuating ways. The stranger was deceived. If he was in a hurry, he would have had better value for his money by taking my cart."

"You have a horse and cart too, then?" asked Chauvelin, peremptorily.

"Aye! that I have, your Excellency, and if your Excellency wants to drive . . ."

"Do you happen to know which way my friend went in Reuben Goldstein's cart?"

Thoughtfully the Jew rubbed his dirty chin. Marguerite's heart was beating well-nigh to bursting. She had heard the peremptory question; she looked anxiously at the Jew, but could not read his face beneath the shadow of his broad-brimmed hat. Vaguely she felt somehow as if he held Percy's fate in his long, dirty hands.

There was a long pause, whilst Chauvelin frowned impatiently, at the stooping figure before him; at last the Jew slowly put his hand in his breast pocket, and drew out from its capacious depths a number of silver coins. He gazed at them thoughtfully, then remarked, in a quiet tone of voice,—

"This is what the tall stranger gave me, when he drove away with Reuben, for holding my tongue about him, and his doings."

Chauvelin shrugged his shoulders impatiently.

"How much is there there?" he asked. "Twenty francs, your Excellency," replied the Jew, "and I have been an honest man all my life."

Chauvelin without further comment took a few pieces of gold out of his own pocket, and leaving them in the palm of his hand, he allowed them to jingle as he held them out towards the Jew.

"How many gold pieces are there in the palm of my hand?" he asked quietly.

Evidently he had no desire to terrorize the man, but to conciliate him, for his own purposes, for his manner was pleasant and suave. No doubt he feared that threats of the guillotine, and various other persuasive methods of that type, might addle the old man's brains, and that he would be more likely to be useful through greed of gain than through terror of death.

The eyes of the Jew shot a quick, keen glance at the gold in his interlocutor's hand.

"At least five, I should say, your Excellency," he replied obsequiously.

"Enough, do you think, to loosen that honest tongue of yours?"

"What does your Excellency wish to know?"

"Whether your horse and cart can take me to where I can find my friend the tall stranger, who has driven off in Reuben Goldstein's cart?"

"My horse and cart can take your Honour there, where you please."

"To a place called the Pere Blanchard's hut?"

"Your Honour has guessed?" said the Jew in astonishment.

"You know the place?"

"I know it, your Honour."

"Which road leads to it?"

"The St. Martin Road, your Honour, then a footpath from there to the cliffs."

"You know the road?" repeated Chauvelin, roughly.

"Every stone, every blade of grass, your Honour," replied the Jew quietly.

Chauvelin, without another word, threw the five pieces of gold one by one before the Jew, who knelt down, and on his hands and knees struggled to collect them. One rolled away, and he had some trouble to get it, for it had lodged underneath the dresser. Chauvelin quietly waited while the old man scrambled on the floor to find the piece of gold.

When the Jew was again on his feet, Chauvelin said,—

"How soon can your horse and cart be ready?"

"They are ready now, your Honour."

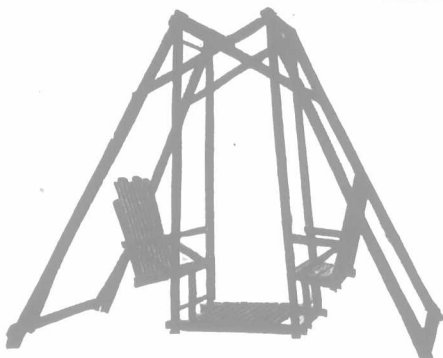
"Where?"

"Not ten metres from this door. Will your Excellency deign to look?"

"I don't want to see it. How far can you drive me in it?"

A REAL SUMMER NEED

The Stratford Lawn Swing



Just the thing for your Lawn or Garden. It is fine for the youngsters and a source of enjoyment for the grown-ups too. It is inexpensive and is built solid and strong.

Write us for Booklet "A" which tells all about this and other Summer and Out Door Furniture.

THE STRATFORD MFG. CO.
Stratford, Ont. Limited



Tenders for Quarantine Accommodation

Tenders are invited for the construction of Quarantine Buildings upon the Quarantine Grounds at Windsor, Ontario.

Particulars may be obtained either from Inspector F. A. Jones, Windsor, or from the Acting Veterinary Director General, Ottawa.

Tenders must be addressed to the undersigned, forwarded by registered mail, and marked plainly on the outside covering, "Tender for Windsor Quarantine Station."

Tenders must reach Ottawa not later than noon on Monday, July 8th, 1912, and must be accompanied by an accepted cheque for ten per cent. of the amount of the tender.

The lowest or any tender not necessarily accepted.

Newspapers publishing this advertisement without authority will not be paid.

A. L. JARVIS,
Assistant Deputy Minister, and
Secretary of Agriculture.

Department of Agriculture.
—23836. Ottawa, 5th June, 1912.

SALT

[Ask your dealer for
RICE'S SALT

The old reliable brand. It is purer than any other make, and you get better satisfaction and value. Besides, you know it is made from Canada's purest brine.

FOR ALL PURPOSES

North American Chemical Co.
CLINTON, ONTARIO

MOVE TO CHILLIWACK
BRITISH COLUMBIA

On the Sunny Pacific slope, where the winter lasts one month, and where the farmer receives larger returns on his investment than anywhere else in Canada. Write for free illustrated booklet.

Sec'y Board of Trade, Chilliwack, B. C.

When Writing Mention Advocate

"As far as the Pere Blanchard's hut, your Honour, and further than Reuben's nag took your friend. I am sure that, not two leagues from here, we shall come across that wily Reuben, his nag, his cart and the tall stranger all in a heap in the middle of the road."

"How far is the nearest village from here?"

"On the road which the Englishman took, Miquelon is the nearest village, not two leagues from here."

"There he could get fresh conveyance if he wanted to go further?"

"He could—if he ever got so far."

"Can you?"

"Will your Excellency try?" said the Jew simply.

"That is my intention," said Chauvelin very quietly, "but remember, if you have deceived me, I shall tell off two of my most stalwart soldiers to give you such a beating that your breath will perhaps leave your ugly body for ever. But if we find my friend the tall Englishman, either on the road or at the Pere Blanchard's hut, there will be ten more gold pieces for you. Do you accept the bargain?"

The Jew again thoughtfully rubbed his chin. He looked at the money in his hand, then at his stern interlocutor, and at Desgas, who had stood silently behind him all this while. After a moment's pause he said deliberately,—

"I accept."

"Go and wait outside then," said Chauvelin, "and remember to stick to your bargain, or by Heaven I will keep to mine."

With a final, most abject and cringing bow, the old Jew shuffled out of the room. Chauvelin seemed pleased with his interview, for he rubbed his hands together, with that usual gesture of his, of malignant satisfaction.

"My coat and boots," he said to Desgas at last.

Desgas went to the door, and apparently gave the necessary orders, for presently a soldier entered, carrying Chauvelin's coat, boots and hat.

He took off his soutane, beneath which he was wearing close-fitting breeches and a cloth waistcoat, and began changing his attire.

"You, citizen, in the meanwhile," he said to Desgas, "go back to Captain Jutley as fast as you can, and tell him to let you have another dozen men, and bring them with you along the St. Martin Road, where I daresay you will soon overtake the Jew's cart with myself in it. There will be hot work presently, if I mistake not, in the Pere Blanchard's hut. We shall corner our game there, I'll warrant, for this impudent Scarlet Pimpernel has had the audacity—or the stupidity, I hardly know which—to adhere to his original plans. He has gone to meet de Tournay, St. Just and the other traitors, which for the moment, I thought, perhaps, he did not intend to do. When we find them, there will be a band of desperate men at bay. Some of our men will, I presume, be put hors de combat. These royalists are good swordsmen, and the Englishman is devilish cunning, and looks very powerful. Still, we shall be five against one at least. You can follow the cart closely with your men, all along the St. Martin Road, through Miquelon. The Englishman is ahead of us, and not likely to look behind him."

Whilst he gave these curt and concise orders he had completed his change of attire. The priest's costume had been laid aside, and he was once more dressed in his usual dark, tight-fitting clothes. At last he took up his hat.

"I shall have an interesting prisoner to deliver into your hands," he said with a chuckle, as with unwonted familiarity he took Desgas' arm, and led him towards the door. "We won't kill him outright, eh, friend Desgas? The Pere Blanchard's hut is—an I mistake not—a lonely spot upon the beach, and our men will enjoy a bit of rough sport there with the wounded fox. Choose your men well, friend Desgas. . . . of the sort who would enjoy that type of sport—eh? We must see that Scarlet Pimpernel wither a bit—what?—shrink and tremble, eh? . . . before we finally . . . —he made an expressive gesture, whilst he laughed a low, evil laugh, which filled Marguerite's soul with sickening horror. "Choose your men well, Citizen Desgas," he said once more, as he led his secretary finally out of the room.

(To be continued.)



Hear What Others Say About It

Following are some extracts taken from letters received from owners of STANDARD Cream Separators. They show what others think of the

Standard

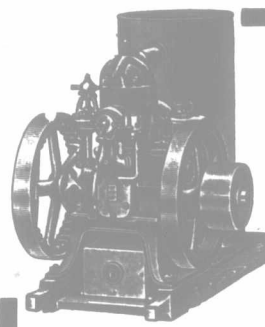
"Its skimming by our repeated tests is perfect." "Your claim, 'The World's Greatest Separator,' I thought at one time rather far-stretched and sweeping. I now believe it justifiable." "I think it is the easiest machine I ever turned, and very easily washed, and I don't think there is a separator that can skim as clean, taking it all round." "Am pleased to tell you that the last test was 0.01." "No back straining to put in the milk and no dirty oil smeared around the machine all the time." "It has the best oiling device I have ever seen." "I find it a very close skimmer with the milk in any condition, and that it will deliver any density of cream with either warm or cold milk, and still flush out easily."

The letters from which the above extracts are taken are printed in full in our booklet. Send for a copy. It is interesting, instructive, and fully describes "The World's Greatest Separator"—the STANDARD.

The RENFREW MACHINERY CO., Ltd.

Head Office and Works: RENFREW, ONTARIO

Sales Branches: Winnipeg, Man.; Sussex, N. B.



This Engine Runs on Coal Oil

Every farmer can afford an Ellis Coal Oil Engine. They give far more power from coal oil than other engines do from gasoline. They are safe, as well as cheap; no danger of explosion or fire.

The strongest and simplest farm engine made; only three moving parts: nothing to get out of repair. Anyone can run it without experience. Thousands of satisfied customers use these engines to grind feed, fill silos, saw wood, pump, thresh, run cream separators, and do dozens of other jobs. Cheaper than horses or hired men. Fill up the tanks and start it running, and no further attention is necessary; it will run till you stop it.

FREE TRIAL FOR 30 DAYS. You don't have to take our word for it. We'll send an engine anywhere in Canada on Thirty Days' Free Trial. We furnish full instructions for testing on your work. If it does not suit you send it back at our expense. We pay freight and duty to get it to you and we'll pay to get it back if you don't want it.

Absolutely guaranteed for 10 years. Write for free catalog and opinions of satisfied users. Special offer in new territory.

3 to 15 horse power We Pay Duty and Freight **Ellis Engine Co., 94 Mullett Street, DETROIT MICH.**



THE CANADIAN

Our numerous customers exclaim that the CANADIAN Gasoline Engine IS THE LEADER

because it is the most reliable, simple, durable and economical engine on the market. Why not benefit by the experience of those who are using the CANADIAN Engine. Made by

The Canadian-American Gas & Gasoline Engine Co., Ltd.
Dunnville, Ontario

FROST & WOOD CO., LTD., Smith's Falls, Ont.
Exclusive selling agents for Eastern Ontario, Quebec and Maritime Provinces.

FARMERS AND STOCKMEN!

Keep your stock in comfort by using the old reliable

Dr. Williams' Fly & Insect Destroyer

It not using you are losing. Manufactured by

BAKER & BOUCK, Morrisburg, Ontario

FRED. G. WEBBER, Woodstock, Ontario

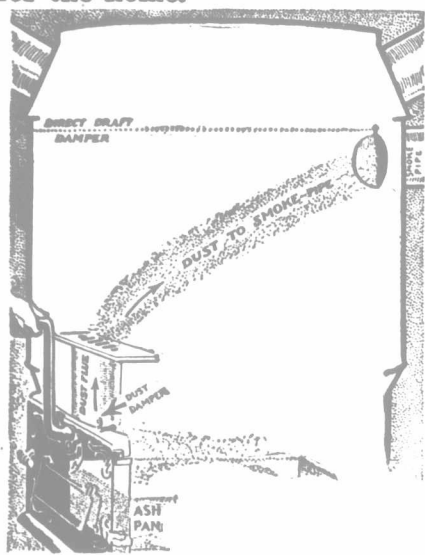
Sales Agent for Western Ontario

MENTION THE FARMER'S ADVOCATE WHEN WRITING ADVERTISERS.

More Facts About McClary's "Sunshine" Furnace

—The Understudy of the Sun—

There's no dust nuisance about the "Sunshine"—when you rock down the ashes the dust is drawn up dust-flue then directly across to smoke-pipe where it belongs. Look at the illustration and remember to open both "Dust" and "Direct Draft" dampers—these simple devices make the "Sunshine" the cleanest furnace for the home.



See the famous "cup joints" here—the frame of the ash pit—the two sections of the fire-pot and the dome all jointed together by our "cup joint."

There's a layer of asbestos cement in each joint—this unites all sections in a permanent way, yet leaves room for the expansion and contraction of the metal.

No wonder that this "Understudy of the Sun" is called the "Sunshine" furnace—Since it diffuses pure warm June air throughout the house.

You don't have to wear overalls when attending to the "Sunshine" furnace—it has a big roomy ash-pan. All the ashes are guided directly into the pan by ash-chutes. A minute or two performs the job. Yes, the "Sunshine" is the clean furnace.

The "Sunshine" Furnace burns either wood or coal. Coke, too, if you prefer it. The "Sunshine" distributes a greater percentage of heat units—the Baffle plates (a new McClary device) decidedly increase the heating efficiency of the furnace.

But—see the McClary agent of your locality. Ask him to show you all the features and exclusive devices which make the "Sunshine" Furnace worthy of the name—The Understudy of the Sun.

If you do not know the McClary Agent, write us at our nearest address and we'll forward you a letter of introduction by return.

LONDON
TORONTO
VANCOUVER
ST. JOHN, N. B.

McClary's

MONTREAL
WINNIPEG
HAMILTON
CALGARY

QUESTIONS AND ANSWERS.

- 1st.—Questions asked by bona-fide subscribers to "The Farmer's Advocate" are answered in this department free.
- 2nd.—Questions should be clearly stated and plainly written, on one side of the paper only, and must be accompanied by the full name and address of the writer.
- 3rd.—In Veterinary questions the symptoms especially must be fully and clearly stated, otherwise satisfactory replies cannot be given.
- 4th.—When a reply by mail is required to urgent veterinary or legal enquiries, \$1.00 must be enclosed.

Miscellaneous.

DRY BATTERIES AND COLD.

Have a gasoline engine to do pumping. The building is not frost-proof.

1. Is there anything that I can use in place of dry batteries so that I will not have to take them to the house when not in use?

2. How many degrees of frost will dry batteries stand before they will freeze?

3. Are there any batteries made that will not freeze? W. E.

Ans.—I have never known of dry batteries freezing, or of any precautions being necessary along this line. As a matter of fact, dry batteries deteriorate more rapidly in a warm temperature than in a cool one. I know of a motor-boat which was stored last fall with the batteries in it, which were subject to all the extreme frost of last winter, and when started up this spring the engine went right off, using the old batteries. W. H. D.

GOSSIP.

A peculiar case of a mare adopting a calf is reported in the Scottish Farmer. Alexander Kennedy, East Barneigh, Bridge of Weir, has had a somewhat peculiar experience with his Clydesdale mare, Lightsome Lass. She foaled a few days ago, but unfortunately the youngster died, and Mr. Kennedy advertised for a foal. He secured one, but in the meantime the mare had taken kindly to the ministrations of a calf, and she refused to welcome the foal when it was presented to her.

SHIRES AND SHORTHORNS AT BATH

The Live-stock Journal, commenting upon the Bath and West Show, held at Bath, said: "The magnificent entry of 2,051, exclusive of those taking part in the competitions, rendered the annual show of the Bath and West and Southern Counties, which opened at Bath on Wednesday memorable amongst meetings of this old-fashioned organization. The display of stock was in every way worthy of the occasion, many of the breeds appearing in greater force than is often the case, and competition in almost all departments being exceptionally keen."

Seldom, if ever, have Shire horses mustered at this show in larger numbers, and the merit was of a very high order. A. J. Wythes got first in aged stallion class on Southerly Harold, a five-year-old bay by Ashwell Capstone. Victor King, by Normoor Forest King, took first in two-year-olds for Sir E. Stern, while Lord Rothschild's Rieckford Carbon, by King Cole, was the best yearling.

W. & H. Whitley had the best aged brood mare in Mollington Movement. The special prize for fillies was won by E. H. Buncombe, on Day Star, by Colwich Blend, and for stallions T. Dibble's King Cole VII., yearling. The gold medal for the best mare or filly was won by Lord Rothschild's Halstead's Duchess VII.

The Shorthorn section contained some seventy-three entries, but the pure-bred dairy classes were not up to the mark. Lord Rothschild's Sunflower 11th won first in the milking class for five-year-olds. The open cow class was headed by G. A. J. Bell's Ceres 23rd. Three-year-old heifers were headed by F. Miller's Augusta 125th, and two-year-olds by Lady Grantley's Village Lass, by Village Beau. Hampton Sweetheart, by Duke of Hampton, scored in the yearling class for J. T. Hobbs.

Aged bulls were headed by Pretender, Viscount Trudegar's former champion, who was made champion again. Mr. Miller's Man o' War was first in a strong class of two-year-olds, and the same man secured first in the yearling class with his Pride.

FREE-FARM ACCOUNT BOOK

Bickmore's Farm Account Book will be sent free to any farmer who will tell us who and where he is. This book is arranged to keep all accounts in simple form—more simple and certainly more practical than trying to remember them; shows what to charge against crop production; has a laborers' time record; and section for personal accounts. 64 pages, for ink or pencil. Not a cheap affair. Its quality is in keeping with BICKMORE'S GALL CURE, a soothing, healing salve, the old time reliable horse remedy. Horses are now too valuable and too high priced to take chances of losing their services. Bickmore's Gall Cure heals and cures **Harness and Saddle Galls; Rope Burns, Cuts, Scratches, Grease Heel, etc.** You don't have to lay the horse off. Bickmore's cures while the horse works. Great thing for sore teats in cows. The work-horse trademark on every box. None genuine without it. Look for it when you go to buy and do not take a substitute. Farm account book is ready. No obligation. Send today.



WINGATE CHEMICAL CO., Canadian Distr's, 880 Notre Dame St. W., Montreal, Can.

Ormsby Grange Stock Farm

Ormstown, P. Que.

Now on hand: From A. & W. Montgomery, "Fyvie Time," 2-year-old stallion by Baron Heaulieu, the making of a very high-class sire; 3-year-old filly by Memento (extra). Also five choice imported 2-year-old fillies and three homebred ones, by such sires as Pride of the Lothians, King's Champion, Silver Cup, Sir Geoffrey and Selborne. If you want something extra, don't delay, as such fillies will find ready sale at prices asked. D. McEachran

Clydesdales, Imp., Just Arrived Our new importation has arrived safely, and we are now in a position to supply the trade with stallions from 1 year old up to 4, with more draft character, big, strong, flat bone, and better breeding than any other firm in the trade. Prices and terms as favorable as any other importer in Canada. BARBER BROS., GATINEAU PT., QUEBEC, NEAR HULL.



Shire Stallions and Mares, Shorthorn Cattle (both sexes); also Hampshire Swine. Prices reasonable.

Porter Bros., Appleby, Ont., Burlington Sta. 'Phone.

CLYDESDALES (Imported) CLYDESDALES

SPRING HILL Top Notchers. Stallions, mares and fillies. 65 per cent guarantee with stallions. Every mare guaranteed in foal. Ages, 3 years old and upwards. J. & J. SEMPLE Milverton, Ontario, and La Verne, Minnesota



CLYDES, SHIRES, PERCHERONS

Now offering 8 imp. Clydesdale fillies, rising 3 years; 1 imp. Clydesdale stallion 12 years, a good one, and several stallions 2 and 3 years; one Shire stallion, sure foal-getter; two black Percheron stallions, 6 and 8 years, and one Thoroughbred stallion. All will be sold at bargain prices. T. D. ELLIOTT, Bolton Ont. Long-Distance Phone.

IMPORTED CLYDESDALES

I have for sale mares and fillies, from foals up to 5 years of age; richly bred and big in size; a number of them in foal; matched pairs, the kind to make you money. They will be sold at prices that defy competition. L.-D. phone. ALEX. F. McNIVEN, St. Thomas, Ont.



MENTION THE FARMER'S ADVOCATE WHEN WRITING ADVERTISERS.



HOMESEEKERS' EXCURSIONS

TO
Western Canada

JUNE 11th and 25th
and every Second Tuesday thereafter until
Sept. 17th; via Sarnia or Chicago.

Winnipeg and Return, \$34.00
Edmonton and Return, \$42.00

Tickets good for 60 days.

Special train will leave Toronto 10.30 p.m. on
above dates, carrying through coaches and
Pullman Tourist Sleeping Cars.

NO CHANGE OF CARS.

The most Popular Route to Muskoka Lakes,
Lake of Bays, Kerwartha Lakes, French
River, Lake Superior and Georgian Bay,
Temagami, Maganetawan River is via
Grand Trunk.

Write for illustrated literature to any Grand
Trunk Agent.

A. E. DUFF, District Passenger Agent,
Grand Trunk Railway

ABSORBINE STOPS LAMENESS

from a Bone Spavin, Ring Bone, Splint, Curb, Side Bone or similar trouble and gets horse going sound. Does not blister or remove the hair and horse can be worked. Page 17 in pamphlet with each bottle tells how. \$2.00 a bottle delivered. Horse Book 9 E free. ABSORBINE, JR., liniment for man-kind. Removes Painful Swellings, Enlarged Glands, Gout, Wens, Bruises, Varicose Veins, Vorticoides, Old Sores. Allays Pain. Will tell you more if you write. \$1 and \$2 a bottle at dealers or delivered. Manufactured only by W. F. YOUNG, P.D.F., 258 Lyman's Bldg., Montreal, Ca

The Scottish Farmer points out that Clydesdale men are not eager to exhibit at Olympia, even though it will cost them nothing. They say they don't need to advertise, as they can sell all they want to on their own.

Mack's SPAVIN **\$1000 BOND** **REMEDY**

The Only Spavin Remedy in the World Sold Under a \$1000 Bond

Have you a lame horse? You can't afford to keep it and you can't sell it. You can put it out of its suffering—or you can practically give it away. Losing money any way you figure.

Mack's \$1,000 Spavin Remedy has saved many a horse for years of hard, useful work, that veterinarians gave up. Whether it is spavin, ringbone, thoroughpin, curb, capped hock, shoe boil, sprung knee, ruptured tendons, swellings or any other cause of lameness, Mack's \$1,000 Spavin Remedy will cure it. If it does not, your money will be refunded—every cent of it.

Another Man Surprised at the Results

717 Shepley St.,
Wilmington, Del., Mar. 30, 1912
McKallor Drug Co., Binghamton, N. Y.

Dear Sirs:—I am giving your spavin remedy a thorough test. Have been using it on a horse that had a spavin so sore that he could not go a mile. In fact I drove him two miles and thought I would not get back with him, it hurt him so. Since starting with your remedy have followed directions faithfully, keeping a strict data so as to be sure.

Have also used it on a mare with side bone that made her lame. They are both good horses. The one with spavin is getting better fast and can go every day, and the one with side bone is sound.

The reason I write is, I am out of ointment, and wish you to send me a box for I do not want to discontinue the treatment.

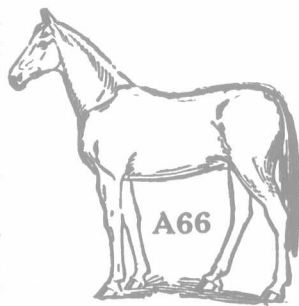
Yours,
J. H. GOULD, Jr.

If you can't get Mack's \$1,000 Spavin Remedy at your nearest druggist's, send us \$2.50 and we will ship it to you direct, express prepaid, and send our

\$1,000 Guarantee Bond to refund your money if the cure is not made.

If you have any doubts what is the cause of the lameness, use the coupon below and our expert veterinarian will diagnose the case and tell you just exactly what to do to bring about a permanent and speedy cure. Don't delay. Every day you put it off your horse may become worse, and you are losing money besides. Our free book, "Horse Sense No. 2," should be in the hands of every horse owner. McKallor Drug Co., Binghamton, New York.

On picture of horse mark with an X just where swelling or lameness occurs, then clip out coupon and mail to McKallor Drug Co., Binghamton, N. Y., with a letter telling what caused the lameness, how long horse has been lame, how it affects the animal's gait, age of horse, etc. We will tell you just what the lameness is, and how to relieve it quickly. Absolutely no charge. Write today.



LYMAN BROS. & CO., Toronto, Distributors to Drug Trade

Union Stock Yards of Toronto, Ltd.

HORSE DEPARTMENT

Auction Sale Every Wednesday Private Sales Every Day

Railroad Loading Facilities at Barn Doors

W. W. SUTHERLAND, In Office. J. H. ASHCRAFT, JR., Manager.

Clydesdale Stallions and Fillies



Our past record for many years in the leading show-rings of Canada and in the yearly increase in volume of business is our best recommendation. This has been our best year. We have still some of the best of last year's importation in both stallions and fillies. We solicit your trade and confidence.

SMITH & RICHARDSON, Columbus P.O., Ont.

Brooklin G. T. R. Myrtle C. P. R. Ottawa C. N. R.

GRAHAM & RENFREW COMPANY
CLYDESDALES AND HACKNEYS

Our winnings at all shows are your guarantee that whatever you buy from us will be the best in the land. You cannot afford to buy without first seeing our importations.

Address all correspondence to Bedford Park P.O., Ont. Telegrams to Toronto. Telephone North 4483, Toronto.

IMP. CLYDESDALE STALLIONS AND FILLIES

In my late importation of Clydesdale stallions and fillies I have exceptionally choicest breeding idea draft characters; as much quality as can be got with size, and I can under sell any man in the business. Let me know your wants.

GEORGE STEWART, Howick, Que. L.-D. 'Phone.

Mount Victoria Stock Farm, Hudson Heights, P. Q.

We have for service this season the champion imp. Clydesdale stallions, Netherlea, by Pride of Blacon, dam by Sir Everard; also Lord Aberdeen, by Netherlea, and the champion Hackney stallion, Terrington Lucifer, by Copper King. For terms and rates apply to the manager.

T. B. MACAULAY, Prop. ED. WATSON, Manager.

BLAIRGOWRIE IS OFFERING AT PRESENT:

Clydesdale Mares, imported and Canadian-bred, from one year up to 5 years; also Clydesdale Mares, imported and Canadian-bred, rising three years. Young cows with calves by side, and a pair of Canadian-bred stallions, well broken and quiet, from 11½ to 14 hands. Heifers well on or in calf. Children's ponies, well broken and quiet.

JOHN MILLER, JR., Ashburn, P.O. Myrtle, C. P. R. Sta. L.-D. 'Phone.

Imp. Clydesdale Stallions of Size and Quality

Our latest importation of Clyde stallions include several that were 1st prizewinners in Scotland. We have them from one year old up, of choicest breeding, big, flashy quality fellows, full of draft character. Our prices are the lowest, and our terms the best.

L.-D. 'phone. GRAWFORD & McLACHLAN, Thedford P.O. and Sta.

Clydesdale Stallions with both size and quality, all prize-winners and breeding of the best blood in Scotland. Prices and terms the best in Canada.

John A. Boag & Son, Bay View Farm, Queensville, Ont. Long-distance 'Phone.

On the Toronto & Sutton Radial Railway Line.

A Few Choice Clyde Fillies—I am offering several choice and particularly well-bred Clydesdale fillies from foals of 1911 up to 3 years of age, imp.

These are the kind that make the money. sires and dams. Also one stallion colt of 1911, imp. sire and dam.

HARRY SMITH, Hay P.O., Ont. Exeter Sta. L.-D. 'Phone.

MENTION THE FARMER'S ADVOCATE WHEN WRITING ADVERTISERS.

QUESTIONS AND ANSWERS.
Veterinary.

DISEASE OF JAW.

Three-year-old colt had a large lump between the eye and nostril. It discharged through the mouth and nostril and reduced in size. It is now about the size of an egg. My veterinarian says it is not due to a diseased tooth. I am applying iodine.

I. M. C.

Ans.—As the trouble is not due to a diseased tooth, it is quite probable it is due to direct injury to the jaw. It is probable the bone has been splintered by a blow, and there may be a detached piece of bone which could be removed, or the bone may be split or splintered in such a manner that an operation would not be successful. It is not probable that the application of iodine will be effective. I would advise you to get your veterinarian to cut down upon the part, and, if possible, ascertain the cause of the trouble, and remove it.

V.

DIARRHEA.

Three-year-old Shorthorn cow two weeks ago suffered from a severe attack of acute diarrhoea. My veterinarian treated her, but she almost baffled his efforts. She is very much reduced in flesh and has gone dry, though she was a good milker. None of my other cattle fed and used the same hay suffered. What is the best treatment for persistent diarrhoea, and had I better dispose of her lest the trouble recur?

L. A. W.

Ans.—Diarrhoea occasionally occurs without appreciable cause, due either to some unsuspected weakness of the digestive glands, or some irritant in the stomach or intestines. No doubt your veterinarian did all that could have been done. The usual treatment when the patient is not too weak, is to give a laxative of about a pint of raw linseed oil with the idea of removing any irritant that may be present. This is followed in about 12 hours with 2 drams powdered opium and 4 drams each of catechu and prepared chalk in a pint of water as a drench every four hours until diarrhoea ceases. There are other treatments no doubt equally as effective, and all practitioners do not treat alike. Avoid sloppy and laxative food, add to her drinking water one-quarter of its bulk of lime water, and if diarrhoea recur, treat as above. We do not recommend disposing of her, unless for beef, as if there be some disease that will cause a recurrence she will be of no use to anybody.

V.

Miscellaneous.

SPRAYING.

1. In spraying 4th Bordeaux mixture say first week in June, would what would fall on clover that is intended for hay, poison stock when fed the same in the winter-time. The second spraying would be two weeks after first, and then clover cut say after June 25th?

2. Can you give another formula for spraying?

3. In spraying the early trees, would the same spraying be too early for the late ones, say Spies?

4. I don't think that farm journals and Government information give enough detail for farmers generally in regard to fruit trees. We don't know where to look for a stamen, a pistil, or a calyx.

FARMER.

Ans.—1. Not likely, unless an undue amount was precipitated in one place and no rains followed before the hay was cut.

2. See the Spray Calendar in "The Farmer's Advocate," Issue March 28th, 1912.

3. It often is. There is considerable difference in the time of leafing and blossoming between early trees and Spies.

4. Spraying has been thoroughly discussed in this and other journals. Government circulars are full and complete. The pistil is the female portion of the flower, situated in the center and surrounded by the stamens, or male portion. The calyx is what is known as the blossom end after the fruit sets. All that is needed is a little study and application.

HORSE OWNERS! USE

GOMBAULT'S CAUSTIC BALSAM.



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

THE LAWRENCE-WILLIAMS CO., Toronto, Canada

T-A Wheels
Defy Bad Roads



These Wide-Tire Steel Wheels are built especially to overcome the troubles of travelling over rocky, sandy or muddy roads. They carry 25 to 50 per cent. heavier loads without causing any heavier draft on the horses.



Built low for ease of loading and unloading.

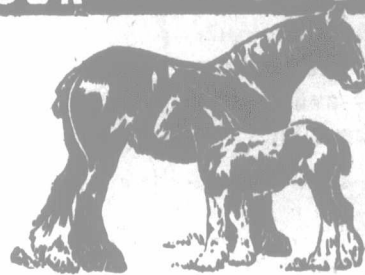
Get a T-A Handy Farm Wagon—it's just the kind you need on your farm. This sturdy little wagon will get over the ground quicker and with less strain on your horses than any other wagon that's made.

Tudhope-Anderson Co'y, Ltd. Orillia, Ontario

Drop us a card and get our catalogue telling all about

T-A Wide-Tire Steel Wheels & Handy Farm Wagon.

INSURE YOUR HORSES



FOALING INSURANCE.

A small premium will secure a policy in our Company by which you will be fully insured against any loss resulting from the death of your mare or its foal, or both. All kinds of insurance on Live Stock. Transit insurance covering horses on board cars for 5, 10, 15, 20 or 30 days.

PROSPECTUS FREE ON DEMAND. General Animals Insurance Company of Canada

Head Office: 71A St. James St., Montreal

OTTAWA BRANCH: No. 106 York Street, Ottawa

Toronto Agency: J. A. Casar, Room 2, Jones Building, Toronto, Ont.

INTERNATIONAL
On Spot Cash Guarantee
GALLICURE
Cures Horses While They Work or Rest
PRICE 25¢ AT ALL DEALERS
INTERNATIONAL STOCK FOOD CO. LIMITED, TORONTO

NOTICE TO HORSE IMPORTERS
GERALD POWELL

Commission Agent and Interpreter
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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.

Messrs. Hickman & Scruby
COURT LODGE, EGERTON, KENT, ENG.

EXPORTERS OF PEDIGREE

Live Stock of all Descriptions

During the spring months we shall be shipping large numbers of Percherons, Shires, Belgians, Clydesdales, Suffolks, etc., and all those who wish to buy imported stock should write us for full particulars.

For Sale Valley Dale Shires. Imported and Canadian bred Stallions, Mares and Fillies from 1 to 7 years old. For description and particulars apply to

Wm. Pearson & Son, West Flamboro, Address 103 York Street, HAMILTON, ONT

Shires and Shorthorns

In Shire stallions and fillies, from the best studs in England, we are offering some rare animals at rare prices. Scotch Shorthorns of either sex or age of highest breeding and quality. John Gardhouse & Son, Highfield Ont. L.-D. 'phone.

Cream Separator Facts Worth Knowing

THERE are six important things a cream separator should do in order to be a paying investment.

- FIRST: It should get all the cream.
- SECOND: It should get the cream in perfect condition.
- THIRD: It should save you money.
- FOURTH: It should save you work.
- FIFTH: It should be durable.
- SIXTH: It should make money for you.

There are a host of machines that are claimed to do these six things. But Empire separators are the only separators actually doing the whole six.



Frictionless Empire

That's certainly a bold statement. It's the truth, nevertheless. FIRST: Empire Cream Separators skim to .02 per cent. and often less. That means the loss of only one pound of butter fat in every five

thousand pounds of milk, which is equal to the loss of one pound of butter fat in all the milk a cow gives in one year. The Frictionless Empire gets all the cream

EMPIRE Cream Separators

SECOND: The few smooth-skimming devices of Empire separators are as easily and thoroughly washed as glass tumblers. This cannot truthfully be said of skimming devices with corners, slots and crevices that soon get clogged up and cannot be thoroughly cleaned. Cream in perfect condition—cream without a taint—can only be obtained from a separator that can be thoroughly cleaned.

THIRD: Empire separators get thirty per cent. more cream than old style methods. The more cream saved the more money saved.

FOURTH: Empire separators do the skimming in a fraction of the time required with old style methods. They save many hours of work.

FIFTH: You can judge the durability of Empire separators when we tell you that the

average cost per machine has been less than thirty cents a year for repairs during ten to fifteen years of service.

SIXTH: Empire Cream Separators get thirty per cent. more cream than old methods. The cream is first quality—commands a higher price than gravity cream. More cream and higher price cream necessarily mean more money. The Empire will give you enough more profit than a cheap separator to pay for itself in two years. No other separators will fulfil all these six requirements. They cannot do so, because they cannot use the Empire patented devices and mechanism.

These patented features are found only in the Frictionless Empire (cone method) and Empire Disc. Whichever you choose, you are bound to be satisfied. Every Empire Separator is sold under a binding guarantee—a guarantee as good as a gold bond.

Write for a copy of our latest catalog. It describes both machines completely and is handsomely illustrated.



Empire Disc.

The Empire Cream Separator Co. of Canada, Limited. Toronto, Winnipeg, Montreal, Sussex

AGENTS EVERYWHERE IN CANADA—LOOK FOR THE EMPIRE SIGN.

International Poultry Food

keeps chickens healthy—prevents Cholera—and makes hens lay.



SAFE FROM CHOLERA

Feed them right and they will feed you right. Give the roosters, hens and little chicks a daily feed of INTERNATIONAL POULTRY FOOD and you will have fine plump Broilers for your own table—plenty of eggs to eat and sell—and vigorous pullets that will develop into good paying hens.

"International Poultry Food" is a grand preparation, and no one raising fowls can afford to be without it, as it is a sure cure and preventative for Chicken Cholera and other diseases and it greatly increases the production of eggs. It does not cost anything to feed it, because chickens will lay more than enough eggs to pay the cost.—V. V. HOLDEN.

Sold by dealers everywhere, on our spot cash guarantee, at 25c., 50c. and \$1 a box. Write for a free copy of our \$3,000.00 Stock Book.

International Stock Food Co., Limited TORONTO



AGENTS \$3 a Day

NEW PATENTED AUTOMATIC CURRY COMB Made of best cold rolled steel. Horsemen delighted. Takes just half the time to clean a horse. Keeps the teeth always clean; no clogging with hair and dirt. A. R. Pett says: "It's a dandy. Sold 14 last night to my neighbors." Easy seller. Big profits. Going fast. Write quick. Free sample to workers. THOMAS MFG. CO., 8744 Wayne St., Dayton, Ohio

EARN A BIG SALARY Be An Auto Expert

Big demand and big pay for chauffeurs, repairmen, and salesmen. Our system of individual instructions by mail enables you to complete the course in 12 simple lessons at home. Send To-day for Free Book, particulars, and endorsements of 10 leading automobile makers. We assist graduates to get positions. Free Model Furnished Each Pupil. Practical Auto School, 601 Beaver St., N.Y. City.

Aberdeen-Angus—A few bulls to sell yet; also females. Come and see them before buying. Drumbo Station.

Walter Hall, Washington, Ont.

ANGUS BULL FOR SALE, 12 months old, from good milking dam. J. W. BURT & SONS, Aberdeen Farm, CONNINGSBY P. O., Erin Station, C. P. R.

PLEASE MENTION THE ADVOCATE.

QUESTIONS AND ANSWERS. Veterinary.

STIFF KNEES.

The knees of an aged driving pony have become somewhat stiff, and she goes lame when trotted. J. McM.

Ans.—It is probable this stiffness is the result of old age, and little can be done for her. Get a liniment made of tincture of arnica 2 ounces, gum camphor 1 ounce, extract of witch hazel 4 ounces, oil of turpentine 1 ounce, and alcohol to make 16 ounces. Rub the joints well with this three times daily. If this blisters, cease rubbing for a few days and apply sweet oil. V.

FOUL IN FEET.

Some of my cattle went lame before they were turned out on pasture, and others have become affected since. During the first stages they suffer acutely and fail in flesh. The coronet and back surface of the pastern swell, and in a few days it breaks out just at the top of the cleft of the hoof, and soon a portion sloughs out between the clouts. A. D. McK.

Ans.—This is foul in the feet, caused by standing in or walking through irritating substances, as liquid manure, mud, rushes, swampy ground, etc. Keep them in a clean, dry place, apply hot poultices of linseed meal to feet for a few days and nights, until the acute soreness ceases, then dress the raw surfaces three times daily with carbolic acid 1 part, sweet oil 24 parts, until healed. If proud flesh forms, apply butter of antimony with a feather once daily for three days. V.

BLOOD POISONING.

Mare had difficulty in foaling, due to malpresentation of foetus. We had to correct the presentation, but did not wash hands, cut finger-nails, or oil arms. The mare did well for four days, then began stamping and swelled from the vulva to the mammae. Next day we flushed out the womb with carbolic solution every two hours. We gave her linseed oil and aloes, and followed up by sweet spirits of nitre, but she died that night. A. N.

Ans.—The mare died of blood poisoning. No doubt the mucus membrane became scarified during delivery, and infectious matter introduced by the hand caused the trouble. If proper antiseptic measures had been observed, it is probable the trouble would not have occurred. Treatment as outlined successful. It consists in flushing the womb as you did, and the administration of antiseptics, as carbolic acid, or 3 grams hypodermic of soda, three times daily. V.

POLES OF STERLING QUALITY

Michigan White Cedar Telephone Poles

W. C. STERLING & SON COMPANY

Older Cedar Pole Firm in Business

INCORPORATED 1880

MONROE, MICHIGAN

1912

ORCHARD GROVE HEREFORDS

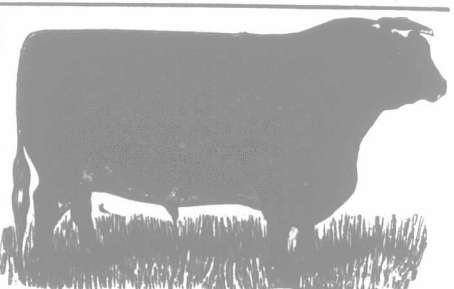
Champions of 1911 shows, winning both senior and junior herds at Winnipeg, Brandon, Regina, Edmonton, Toronto and London; also fifteen championships. Young stock, both sexes, for sale at reasonable prices. Long-distance Phone L. O. CLIFFORD Oshawa, Ont.

Present Special Offering

- 20 High-Class Scotch Shorthorn Heifers
- 10 High-Class Young Shorthorn Cows
- 5 High-Class Scotch Shorthorn Bulls

At moderate prices, including Marr Missies, Emmas, Cruickshank Nonpareils, Duchess of Glosters, Village Girls, Bridesmaids, Butterfllys, Kinellar Clarets, Miss Ramsdens, Crimson Flowers; also a number of the grand old milking tribe, which have been famous in the showing.

ARTHUR J. HOWDEN & CO. Columbus, Ontario



Shorthorn Bulls and Clydesdale Mares

If you are in the market for a young bull, write us for particulars, or, better still, come and see them. We have 13 young bulls, from 8 to 14 months old, of good breeding and quality. We also have four imported Clydesdale mares, safe in foal.

W. G. PETTIT & SONS, Freeman, Ontario

Bell phone. Burlington Jct. Sta., G. T. R., 1/2 mile from farm

SHORTHORNS

Have now a choice lot of young bulls to offer; also with something nice in heifers. Catalogue of herd and list of young animals on application. H. CARGILL & SON, Proprietors, Cargill, Ont., Bruce Co. JOHN CLANCY, Manager



10 SHORTHORN BULLS 10

If you are looking for a young bull to head a purebred herd, or one to cross on grade cows to raise first-class steers, I have them to suit all customers at very reasonable prices. They are reds and roans, and one extra good white show calf; ages from 9 to 14 months, nearly all sired by imported bulls and from the best Scotch families of cows. Will be pleased to furnish breeding and prices.

Claremont Stn., C.P.R., 3 miles. Pickering Stn., G.T.R., 7 miles. JOHN MILLER, Brougham P.O., Ont.

Scotch Shorthorns

FOR SALE. Imported Bandsman, a grand individual and an extra sire; one 10 months imported bull calf, a Marr Flora; 30 choice cows and heifers in calf; at reasonable prices. Farm 1/2 mile from Burlington Jct. Station.

MITCHELL BROS., Burlington, Ont

THIS IS A GOOD TIME, AND I HAVE A GOOD PLACE, TO GET A HIGH-CLASS SCOTCH SHORTHORN BULL CALF by my great Whitehall Sultan sire, or a young cow in calf to him, to start a herd that will be gilt-edged. SHROPSHIRE RAMS AND EWES, too, at low prices. CHILDREN'S PONIES. A CLYDES- say as nearly as possible what you want, and I will surprise you with prices on goods that are genuine. ROBERT MILLER, STOUFFVILLE ONTARIO

Scotch Shorthorn Females for Sale

I am offering at very reasonable prices, females Scotch Hero (imp.) = 55942 = (9068), and the older ones have calves at foot by him, or are well gone in calf to him. Their breeding is unexcelled, and there are show animals amongst them. A. EDWARD MEYER, Box 378, GUELPH, ONT.

SALEM SHORTHORNS Headed by (Imp.) Gain'ord Marquis, undoubted junior championship honors at Toronto, 1911. Have on hand two yearlings and a number of under a year for sale at reasonable prices. J. A. WATT, Salem, Ont. Elora Sta, G. T. R. and C. P. R.

WAS TROUBLED WITH HIS HEART

HAD TO GIVE UP WORK

Mr. Alfred Male, Elaida, Ont., writes: "I was troubled with my heart for two or three years. I thought sometimes that I would die. I went to the doctor, and he said he could not do anything for me. I had to give up work. My wife persuaded me to try Milburn's Heart and Nerve Pills. The first box relieved me, so I kept on until I had taken seven boxes, and they cured me. I would not be without them on any account, as they are worth their weight in gold. I advise my friends and neighbors who are troubled with heart or nerve trouble to try them."

To any of those suffering from heart or nerve trouble we can recommend our Milburn's Heart and Nerve Pills with the greatest confidence.

Price 50 cents per box, or 3 boxes for \$1.25. If your dealer does not have them in stock, send direct to The T. Milburn Co., Limited, Toronto, Ont.

MERCHANTS PRODUCE CO.

Butter Eggs Poultry Honey Beans Apples Potatoes, etc.

Our constantly growing trade demands large supplies of choice farm produce. We need yours. Write for weekly market letter.

57 Front St. E., Toronto
Established 1899

Shortshorns, Berkshires, Cotswolds

Nine bulls from 9 to 11 months, cows, heifers and heifer calves; over 50 head on hand. No Berkshires to offer at present. A few shearing ewes for sale.

Chas. E. Bomycastle,

P. O. AND STA., CAMPBELLFORD, ONT.

Shorthorns of Show Calibre

At present one nice red bull 12 months old (of the Bellona family) for sale at low price. Heifers of breeding age all sold.

Geo. Gier & Son, Grand Valley, Ont.

WOODHOLME SHORTHORNS,

I have for sale a number of choicely-bred Scotch Shorthorn heifers and several young bulls, all of high-class quality and sired by Imp. Dorothy's King =35009=, a Lady Dorothy.

G. M. FORSYTH, North Claremont P.O. & Sta.

SPRING VALLEY SHORTHORNS

Herd headed by the two imported bulls, Newton Ringleader, =73783=, and Scottish Pride, =36106=. The females are of the best Scotch families. Young stock of both sexes for sale at reasonable prices. Telephone connection.

KYLE BROS. - - Ayr, Ontario

OAKLAND SHORTHORNS I

Present offering is five choice young bulls, from 7 to 22 months old, reds and roans, out of good dual-purpose dams, and sired by our champion Scotch Grey bull 72692. Visitors find things as represented. Good cattle and no big prices.

JOHN HILDER & SON, HENSALL, ONTARIO

IMPORTED BULL FOR SALE

Fletcher's Shorthorns—(Imp.) Spectator =50094=, and choice heifers for sale

GEO. D. FLETCHER, Binkham, Ont. Erie Sta., C. P. R.

GEDARDALE SHORTHORNS—

Shorthorns of all ages, pure Scotch and Scotch topped, imp. and Canadian-bred, choice heifers, choice young bulls, also the stock bull Lord Fyvie (Imp.); anything for sale.

Dr. T. S. Spreule, M. P., Markdale, Ontario

Clover Dell Shorthorns

Real bargains in females. Dual-purpose a specialty. L. A. Wakely, Bolton, Ont. Bolton Sta., C. P. R.; Caledon East, G. T. R. Phone.

Spruce Lodge Shorthorns and Leicesters

Will price cheap young bull from 6 to 14 months; also 1 and 2-year-old heifers, some from imp. sires and dams. Leicesters at all times of both sexes for sale. Phone. W. A. Douglas, Tuscarora, Ont.

QUESTIONS AND ANSWERS. Miscellaneous.

HENS DIE.

Will you please answer, through your valuable paper, the cause of hens dying from having their galls burst, as we have had several die and would like to know the cause? W. H.

Ans.—The trouble of gall-bursting in poultry is not known to us. The hens must have had some other trouble.

WART ON HORSE'S NECK.

Have a young horse with a wart on his neck about the size of top of your finger; does not interfere with harness; probably would spoil sale. Can you tell me any way of taking it off without leaving a mark? SUBSCRIBER.

Ans.—Repeated applications of castor oil have been known to remove warts. Butter of antimony applied with a feather would likely remove it.

MILLET.

1. What distance should the drills be apart for Japanese millet?

2. Could it be cut for silage? If so, at what stage?

3. At what stage should it be cut for hay? SUBSCRIBER.

Ans.—1. Sow in drills with the ordinary grain drill. It does just as well broadcasted.

2. It would not be likely to make satisfactory silage. Better make hay of it.

3. When the seeds are in the dough stage.

BLIND AND DESTITUTE.

1. We have a blind indigent in our municipality who has a married son and daughter in good circumstances living in a distant municipality. All these are living in the Province of Ontario. Can the council of the township in which the indigent lives compel the son and daughter to provide for their father?

2. Is the municipality obliged to support the indigent? REEVE.

Ontario.

Ans.—1. We do not think so.

2. It practically comes to that.

BUILDING ON BOUNDARY.

In 1899 a division line was run between two farms; and as some twenty rods of division fence was within a few feet of line it was left standing. In 1908 the property changed hands. I have built on this twenty rods of the surveyed line. Can any objection be taken? The original fence was barbed wire.

Ontario.

Ans.—Hardly—under the circumstances stated, and in view more especially of the length of time that has elapsed since the line was run.

THE SCARLET PIMPERNEL—PLANTING POTATOES.

1. Where could I get the book called "The Scarlet Pimpernel"?

2. Which is the best time to plant potatoes for the best crop, early as you can, or late? O. D. B.

Ans.—1. The book is published by G. P. Putnam's Sons, New York, U. S. A., from whom it may be obtained. It might be ordered through your local book store.

2. Anywhere from the 24th of May to the 10th of June.

WART ON HEIFER.

I have a valuable yearling heifer which has a large wart or scrofulous lump growing on lower part of side just in front of hind leg. It has not a narrow or constricted neck, so that it could be dissected out with any degree of safety in warm weather. Is there any treatment I could give it to diminish its size, or take it off altogether without the use of the knife? J. J. M.

Ans.—Very large warts of this kind can be removed only by excision or torsion. The better way is to cast the heifer and secure her firmly with ropes, then with a sharp knife carefully dissect the wart off, removing only those portions of skin to which the warts are directly attached. There will be little bleeding, as there are no large blood vessels in such growths. After the operation, the raw surfaces should be dressed once daily with butter of antimony, applied with a feather, for three or four days, after which they should be dressed twice daily with 1 part carbolic acid to 20 parts sweet oil until healed. If there are any small, flat warts, they can be slowly removed by dressing daily with butter of antimony.

To Stock Breeders

ANNOUNCEMENT OF EXTRA CASH PRIZES AT CANADIAN NATIONAL EXHIBITION, TORONTO, 1912

To every owner of an animal (horses, cattle, sheep or pigs) winning a first prize at the Canadian National Exhibition at Toronto, 1912, that was fed regularly with the original Molassine Meal, made in England, we will give

\$25.00 IN CANADIAN GOLD

as an extra prize. The only condition is that the animal must have been fed regularly from July 1st, 1912, up to the time of the Exhibition on Molassine Meal to the extent of not less than three quarts per day.

The only proof we require is a certificate from your dealer stating the amount of Molassine Meal you purchased.

MOLASSINE MEAL

The best feed for Live Stock known to Science

There is hardly a Farmer, Race Horse Trainer, Stock Breeder, Horseman, &c., in the British Isles that does not use Molassine Meal regularly for his stock



The Original Molassine Meal, made in England, bears this Trade Mark on every bag.

MOLASSINE MEAL is a food and replaces other food stuffs. It will keep all animals in good health. Prevents and eradicates worms.

HORSES will do more and better work, keep in better health and do not chafe from the harness so much when fed on Molassine Meal. Is equally suitable for heavy draft horses, hunters and race horses, and will bring Show Animals to the pink of condition quicker and better than any ordinary methods of feeding.

MILCH COWS will increase the flow and quality of their milk and make rich flavored butter and cheese, and will prevent any taint in the milk when cows are fed on roots.

STOCKERS can be fattened quicker on Molassine Meal than anything else. It aids and digests their other foods and keeps them free from worms.

PIGS will be ready for the market ten days to three weeks earlier when fed on Molassine Meal than when fed on any other food.

SHEEP AND LAMBS, fed on Molassine Meal, produce the finest mutton and meat obtainable, securing top prices.

POULTRY will fatten quicker and the hens will lay more eggs when fed on Molassine Meal.

MOLASSINE MEAL is put up in 100-lb. bags.

Order from your nearest dealer but be sure and get the genuine. Be sure that the trade mark is on the bag, as above.

FREE SOUVENIR.

Fill in and mail the following coupon to-day and get one of our souvenir gifts free. Put a cross against the souvenir you would like to have.

To The Molassine Company, Ltd., 402 Board of Trade Building, Montreal, Que., Distributors for Canada for Molassine Meal.

Please send me your free souvenir (Fountain Pen, Pocket Pencil or Match Box) also full particulars regarding Molassine Meal.

Name.....

Occupation.....

Name of your feed dealer..... Address.....

THE MOLASSINE COMPANY LTD., LONDON, ENG.

L. C. PRIME CO., LTD., Distributors, 402 Board of Trade, Montreal. 437

BEST RESULTS ARE OBTAINED FROM ADVOCATE ADVERTISEMENTS.

Cow-Ease

Prevents Ticks.

KEEPS FLIES OFF Cattle and Horses

and allows cows to feed in peace, making More Milk and More Money for you. A clean, harmless liquid preparation, applied with a sprayer. Keeps cows in good condition, and saves five times its cost in extra milk.

TRIAL OFFER

If your dealer cannot supply you, send us his name and \$1.25, and we will deliver prepaid to your address a half-gallon can of COW-EASE and SPRAYER for applying. For West of Missouri River and for Canada, above Trial Offer, \$1.50.

Satisfaction or Money Back.

CARPENTER-MORTON CO.
BOSTON, MASS.




Dyer's Big Cut in Lawn Fence

Oval top pickets, crimped No. 9 wire, 27-8 inches apart. Cabled laterals, 7 inches apart. Galvanized finish. Handsome and sturdy. Prices per foot:

36 in. x 7 1/2 in. high	42 in. x 8 1/2 in. high	48 in. x 9 1/2 in. high
2c.	2 1/2 c.	3c.

Freight paid in Ontario, south of North Bay. Outside deduct 1 1/2 c. per foot and you pay the freight.

Painted fence, green or white, add 2c. per foot to above prices. Scroll top walk gates, to match, \$3.00. Drive gates, \$6.50. I supply fencing for every purpose direct from factory and save you big money. Satisfaction guaranteed or money refunded. Remit money order (any kind) or registered letter.

DYER, The Fence Man, Dept. C Toronto

Who Pays the Duty?

You can't get away from the fact that **directly or indirectly** the DUTY has to be paid by the consumer; therefore, why pay fancy prices for calf meals of foreign manufacture when you can buy CALFINE 15 to 20 dollars a ton cheaper and secure at least equal, and in most cases superior, results.

CALFINE

"The Stockman's Friend"

is a pure, wholesome, nutritious meal for calves. It is now in use on many of the largest and best equipped dairy farms in the Dominion.

Ask your dealer for a 100 lb. bag of CALFINE as a trial—you will soon be back for more. If your dealer does not handle it, write us. We will do the rest.

Feeding Directions Sent on Application.

Canadian Cereal & Milling Co. Limited
TORONTO, CANADA

WANTED-CREAM

Highest Toronto prices paid for cream delivered at any express office. We pay all charges, furnish cans free, pay accounts fortnightly, engage man to collect at some points. Ice not essential. Write for particulars.

THE TORONTO CREAMERY CO'Y, LTD.
Toronto, Ontario

Shorthorns—Nine bulls and a number of heifers for sale at very reasonable prices.
Robert Nichol & Sons, Hagersville Ont

QUESTIONS AND ANSWERS. Miscellaneous.

CATTLE TAGS.

1. What is the most convenient way of distinguishing the individual cows of a large herd?
2. Is there any other handy way than tags, and can you refer us to some firm which manufactures tags?
G. F. M.

Ans.—1. An ear tag is as good as any.
2. See the advertisement of F. G. James, Bowmanville, in this journal.

ORCHARD CROPPING — PEAS — BUCKWHEAT.

1. What is best to sow in an apple orchard to fatten pigs for next fall? Was plowed and manured last fall, intended for corn, but as too late now, would like to try next best.
2. What is the latest peas can be sown for pigs?
3. Do you consider buckwheat a profitable crop for a backward season like this?
J. D.

Ans.—It is not the best kind of orchard practice to sow a crop with a view to providing feed for pigs. The orchard should be seeded in June, or the first of July, with a crop allowed to grow, and then plowed under next spring. Alfalfa would be good for this purpose, and would supply some grazing by fall. Rape would be fairly good, only that it makes disagreeable apple picking.

2. We would not care to risk sowing after the middle of June, and would much prefer earlier seeding.
3. Yes, in many cases.

FIELD PEPPERGRASS — TREFOIL.

1. Is the accompanying plant, found growing in new alfalfa seeding, a noxious weed, and if so, what treatment will be most effective?
2. Is there more than one variety of alfalfa? Here and there through the field, coming strong to head about June 6th, there were little yellow blossoms showing, unlike the purple flowers I was looking for.
T. W.

Ans.—1. The weed is field peppergrass, or cow-cress (*Lepidium campestre*), occurring in some of the clover-growing districts of Ontario. The plant produces several stems, branched above. It is a species closely allied to the wild peppergrass (*Lepidium apetalum*), but can be distinguished by the small, boat-shaped pods. The weed is not troublesome in many parts. If the alfalfa is cut before it seeds, little trouble will be experienced. Where seeds are formed it should be pulled. Fields in regular rotation give little trouble. Working immediately after harvest, and again in the spring until June, when a fodder crop can be planted, is recommended.

2. The yellow blossoms are those of trefoil clover. There are several varieties of alfalfa, but the trefoil is an altogether different genus and species. In most districts it is considered as a weed.

HYDRATED LIME FOR SPRAY MIXTURES.

A local dealer offers me hydrated lime (powdery) at 25c. per 40-lb. paper sack. Will it answer for making spraying mixtures as well as the lump, white lime, such as we get from Beachville, Ont.?
For making Bordeaux mixture, will it be quite satisfactory in the proportions of 4 or 5 lbs. lime to 4 lbs. bluestone?
F. G.

Ans.—I do not recommend the use of hydrated lime in making lime-sulphur, because the lime-dealers tell me that Guelph limestone (I mean Guelph formation) is largely used in making it. The Guelph limestone contains a high percentage of magnesium, and this substance is objectionable in several important ways in making lime-sulphur. Were it hydrated lime guaranteed to have been made from Beachville or St. Mary's lime, I should recommend it.

On page 3, Bulletin 198, I have given a list of the best limes to use. White lime is not at all a proof of a pure lime. For instance, Guelph kilns turn out a white lime and Rockwood a gray lime, but both belong to the Guelph formation, and both are suited for making concentrated lime-sulphur. The color of the lime is not a test of its purity. A white lime may be excellent for building purposes and very poor for making lime-sulphur.
L. C. CARSWELL
Ontario Agricultural College

\$15.95 AND UPWARD

SENT ON TRIAL FULLY GUARANTEED.

AMERICAN SEPARATOR

A brand new, well made, easy running, easily cleaned, perfect skimming separator for \$15.95. Skims one quart of milk a minute, warm or cold. Makes thick or thin cream. Thousands in use giving splendid satisfaction. Different from this picture, which illustrates our large capacity machines. The bowl is a sanitary marvel and embodies all our latest improvements. Our richly illustrated catalog tells all about it. Our wonderfully low prices on all sizes and generous terms of trial will astonish you. Our twenty-year guarantee protects you on every American Separator. Shipments made promptly from WINNIPEG, MAN., ST. JOHN, N. B. and TORONTO, ONT. Whether your dairy is large or small get our great offer and handsome free catalog. ADDRESS, **AMERICAN SEPARATOR CO., BAINBRIDGE, N. Y.** BOX 1200.



LIVINGSTON'S OIL CAKE MEAL

Is the most wholly nutritious stock food you can buy. Made of the purest Linseed—by the celebrated Old Patent Process (which makes it keep three or four years, if necessary)—proved by feeding tests, both practical and scientific, to be 95% digestible.

Even if LIVINGSTON'S OIL CAKE MEAL costs twice as much as the other foods which do not keep and cannot be half digested, it would pay every farmer and dairyman to get LIVINGSTON'S OIL CAKE MEAL. The cost is only a trifle higher.

LIVINGSTON'S OIL CAKE MEAL is really cheapest in the end—quickly increasing and improving the milk and healthily fattening cattle.

As your dealer. If he cannot supply you, write us:

THE DOMINION LINSEED CO., LIMITED
Baden, MANUFACTURERS Ontario

MAPLE LODGE STOCK FARM

1854 — 1912

Have desirable Shorthorns and Leicester sheep. Cows are high-class milkers. A handsome young Clydesdale stallion for sale.

A. W. SMITH, Maple Lodge, Ontario
Luean Crossing, G. T. Ry., one mile.

Don Jersey Herd

Offers young bulls and heifers for sale; heifers bred to Eminent Royal Fern.

D. Duncan, Don, Ont., Duncan Str., C.N.R.
Phone Long-distance Agincourt.

Brampton Jerseys

cows and some calves for sale. Production and quality.

B. H. BULL. & SON, BRAMPTON, ONT.

Balaphorene A. J. Jerseys

— Foundation stock, St. Lambert, Coomassie, Combination; stock from a grandson of Bim of Dentonia; also a grandson of the great Blue Blood of Dentonia, for sale. W. Wyandotte eggs, \$1 per 13. **Joseph Seabrook, Havelock, Peterboro Co., Ont.**

High Grove Stock Farm

No better Jersey blood in Canada. Stock all ages and both sexes for sale.

Arthur H. Tufts, P. O. Box 111 Tweed Ont
When writing please mention The Advocate

SPRINGBURN AYRSHIRES

Owing to remodelling our barns we do not care to carry any bulls over the summer months. Three yearlings and five early spring calves to select from. Prices right for prompt delivery. Always about 50 head of females of all ages to select from. Tuberculin tested.

McMILLAN & LEGGAT, Trout River, Que
Bell telephone, Huntingdon 81-21. Carr's Crossing, G. T. R. Huntingdon, N. Y. C. R.

Ayrshires and Yorkshires

—We have still some good young bulls. Now is the time to buy for the coming season, before the best go. We have females any age, and can fill orders for carlots of Ayrshires. Pigs of either sex on hand.

ALEX. HUME & CO., Menie, Ont.

City View Ayrshires

All from R. O. P. ancestors. Young bulls of January, March, May and July, 1911; also calves of 1912. Right good ones. Males only for sale. Write, phone or call. **JAMES BEGG, R. R. No. 1 half mile west. ST. THOMAS, ONT.**

STONEHOUSE AYRSHIRES

Are coming to the front wherever shown. Look out for this at the leading exhibitions. Some choice young bulls for sale, as well as cows and heifers.

HECTOR GORDON, Howick, Quebec.

Hillcrest Ayrshires

—At head of herd is Ivanhoe of Tanglewild, a son of the champion Ayrshire cow, Primrose of Tanglewild, R. O. P. test 16,195 lbs. milk and 625.62 lbs. fat; 60 head to select from. Inspection invited.

F. H. HARRIS, Mt. Elgin, Ont.

Choice Ayrshires

10 choice cows and heifers for quick sale. Good tests, heavy producers, high testers. Prices low considering quality. **WILLIAM THORN, Trout Run Stock Farm, Lynedoch, Ont.** Phone in house.

Ayrshires of production, type and quality.

I can supply Ayrshires that will please the most exacting critic. Young bulls or females of any age, the kind that swell the bank account.

R. M. Howden, St. Louis Sta., Que. L.-D. phone.

Burnside Ayrshires

Champions in the show ring and dairy tests. Animals all ages and both sexes for sale.

R. R. NESS, Howick, Quebec Long-distance phone in house




QUESTIONS AND ANSWERS.
Miscellaneous.

DAIRY INSPECTOR.

Could you please send me the name and address of the sanitary inspector of cheese factories. A SUBSCRIBER.

Ans.—Write to G. G. Publow, Chief Dairy Inspector for Eastern Ontario, Kingston, Ont.

RABBITS AND SQUABS.

Can you kindly give me any information concerning the growing and rearing of rabbits and squabs, in your next issue, or as soon as is convenient.

W. C. B.

Ans.—All that is needed to raise rabbits is rabbits and small pens to keep them. They are very easy to raise, and breed very rapidly. Start with a few, one male and two or three females, and in a short time you will have hundreds. Squabs, or young pigeons, are easy to rear. The shelters should not be too cold, but they will withstand quite a lot of hard, freezing weather. The fittings required are nests, perches, and drinking and bath fountains. Each bird requires a space of about two square feet, so that a small building will house a large number of the old birds. An outside yard, built entirely of and covered with wire netting, is necessary. Squabs are sold at 1/4 to 1/2 lb. weight and sometimes a little heavier. Homers, or a cross between Homers and Runts, make good squabs. Cracked grains are used as food.

FARM LIMITS ENCLOSED.

I sold fifty acres of my farm to a neighbor, and we measured same off. It is eighteen feet on the length and eighteen on the width over the fifty to the stake.

1. Can he claim any more than the fifty acres? I gave him the eighteen feet on the length, but can he claim any of it?

2. The line never was run between the hundred and the fifty, but there was a fence put up at random between the two. Can he compel us move the fence to the line after it has been up over thirty years?

3. If the writings call for fifty acres, more or less, can he claim the eighteen feet, or anything over the fifty acres?

4. If the surveyor were brought on, would he measure by the stake, or would he measure fifty acres, as it was fifty acres I sold?

Ontario.

Ans.—1, 2 and 3. Taking the facts to be precisely as stated, we are inclined to think that all three questions are answerable in the affirmative.

4. It would seem that the stake ought to govern; but in order to be in a position to give definite answers to your questions, it would be necessary to see "the writings" and know considerably more of the facts and circumstances.

COLT DIED.

Could you give me probable cause of colt's death? The mare was worked up within a few days of foaling, and was fed hay, crushed oats, bran, and roots. Colt appeared fairly strong first day; morning of second day seemed rather dull; gave dose of castor oil; colt died third day. Colt had passage, and no swelling of joints was noticeable. We opened colt after death and found stomach to contain about a quart of very tough, cheesy matter, which no doubt caused death. What treatment would have prevented this?

J. R. W.

Ans.—This looks very much like a case of retention of the meconium. Are you sure the milk had got through the colt's digestive tract? It may have passed a part of this material and the remainder lodged in the tract, causing death. Injections of warm water and oil per rectum are about all that can be done. The oiled finger inserted aids in removing the lumps. The first milk of the dam aids the expulsion. Did she leak milk before foaling? If so, the action of the first milk would be lost to the colt. The real trouble exists in the rectum, and the cheesy mass was likely undigested milk lodged in the stomach, because it had no means of escape with the rectum clogged. If the colt had passed its dam's milk, it should not have died from digestive troubles, unless very weak. Avoid as far as possible giving colts purgatives.

You are losing money every year you put off the installation of an IDEAL GREEN FEED SILO



A GOOD SILO is a necessary part of the dairy equipment of every cow owner who wants to realize a profit from his herd.

If you haven't a Silo, a little investigation will be sure to convince you that you ought to erect one. Most likely you have already come to that conclusion.

Then the question is: "When shall I buy and what Silo?"

Don't buy anything but a Wood Silo. Cement or brick or stone not only cost much more than wood in the first place, but there is too much waste from spoiled silage with anything but a wood silo. If there is the slightest doubt in your mind about this we will be glad to give you full information on this vital subject.

The Best Wood Silo is the Cheapest

It costs less in the first place, and will give you the best service.

We are the oldest and best known Silo manufacturers in Canada. Thousands of our Ideal Green Feed Silos are in use on the most prosperous farms, and they have always given satisfaction.

Ideal Green Feed Silos are of the very best material, and everyone contemplating the erection of a silo this year will find it to his advantage to get our specifications and prices before contracting for the erection of a Silo.

Write for Our New Silo Catalogue To-day

DE LAVAL DAIRY SUPPLY COMPANY, LTD.

LARGEST AND OLDEST SILO MANUFACTURERS IN CANADA

173 William Street, MONTREAL

14 Princess Street, Winnipeg.

SPECIFICATIONS

Material: Canadian Spruce especially selected for our own use.

All lumber is saturated with a solution which prevents rot and decay and reduces the tendency of the staves to swell or shrink and adds two or three times to the life of the Silo.

Hooped with heavy round hoops every 30 inches apart.

Only malleable iron lugs are used.

All doors on the Ideal Green Feed Silos are self-sealing.

Doors are only 6 inches apart, can be removed instantly and are always air tight.

The roof is self-supporting; built without rafters.

Door window facilitates filling silo clear to the top. All sizes furnished.

RAILS NEW AND SECOND-HAND
Cut to Specification for any Purpose

JOHN J. GARTSHORE, 58 WEST FRONT STREET, TORONTO

LAKEVIEW HOLSTEINS!

Bull calves sired by Dutchland Colantha Sir Mona, and out of heifers sired by Count Hengerveld Fayne De Kol.

Telephone. E. F. OSLER, BRONTE, ONTARIO

Fairview Farms Herd

Is where you can secure a son of Pontiac Korndyke, admitted by all breeders to be the greatest sire of the breed, through his sons. Every son of Pontiac Korndyke that has daughters old enough to milk is a sire of good ones. We can offer you several young ones that will give you great daughters.

E. H. DOLLAR, HUEVELTON, N. Y.

SUMMER HILL HOLSTEIN CATTLE and YORKSHIRE HOGS

Our senior herd bull, Sir Admiral Ormsby, is the sire of the world's record 2-year-old for yearling butter production. Also sire of the three highest record four-year-olds in Canada. The dam of our junior herd bull made 34.60 lbs. butter in 7 days, and gave 111 lbs. milk per day. Come and make your selections from over 70 head.

In Improved English Yorkshires we have won 95 per cent. of all first prizes at Toronto Exhibition for ten years. We are still breeding them bigger and better than ever.

Buy Summer Hill Yorkshires, the big, quick-maturing kind, and double your profits.

D. C. FLATT & SON, R. F. D. No 2 Hamilton, Ontario. Bell phone: 2471, Hamilton.

HIGH-CLASS REGISTERED HOLSTEINS. Nothing more for sale until June 12th. On that date the Oxford Holstein Breeders Club will hold a Consignment Sale and we have decided to contribute sixteen head of choice females, all ages, and our splendid stock bull "Prince Abbekerk Merceua". Any one wanting choice cattle at his own price should attend this sale as it is sure to be the best of the season. A. E. HULET, Norwich, Ontario

HOLSTEINS, YORKSHIRES, HACKNEYS

Our herd of over 30 Holstein females, from calves up, are for sale. Come and make your own selection. In Yorkshires we have a large number of young sows, bred and ready to breed, of the Minnie and Bloom tribes. Also one two-year-old Hackney stallion; black with white points. No fancy prices asked. A. Watson & Sons, R. R. No 1, St. Thomas, Ont. L.D. phone from Fingal.

Maple Hill Holstein-Friesians—Special offering: Bulls from one to fifteen months old. The growthy kind that will give good service. One from a son of Evergreen March, and all from Record of Merit dams. Write for particulars.

Bell Telephone. G. W. CLEMONS, St. George, Ont.

IMPERIAL HOLSTEINS

I can supply bulls ready for service and younger ones, also heifers out of R. O. M. cows, female relatives have records averaging 27.19 pounds.

W. H. Simmons, New Durham P.O., Oxford Co.

Woodbine Holsteins—Herd headed by King Segis Pontiac Lad, whose sire's dam is the champion cow of the world. Sire's sire is the only bull that has sired five four-year-olds that average 30 lbs. each. Dam's sire is the bull that has sired two 30-lb. three-year-olds. His two great grand sires are the only bulls in the world that have sired two 37-lb. cows. Bulls and bull calves for sale. A. KENNEDY, Ayr, Ontario.

Cattle and Sheep Labels

Size	Price doz.	Fifty tags
Cattle	75c.	\$4.00
Light Cattle	60c.	1.90
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. S. JAMES, Bowmanville, Ont.

Purebred Registered Holstein Cattle

The most profitable dairy breed, greatest in size, milk, butter-fat and in vitality. Send for FREE illustrated descriptive booklets. HOLSTEIN-FRIESIAN ASSO. F. L. Houghton, Sec'y, Box 127, Brantford, Ont.

Holsteins of Quality

Write us to-day for our proposition, telling you how any good dairyman may own a registered Holstein bull from a Record-of-Performance cow without investing a cent for him. Monro & Lawless, "Elmdale Farm," Thorold, Ont.

The Maples Holstein Herd

offers a splendid lot of bull calves, all sired by Prince Aaggie Mechthilde and all from record of merit dams. For pedigrees and prices write

WALBURN RIVERS, Falden, Ontario

Maple Grove Holsteins—Herd headed

Hengerveld, the greatest 30 lbs. back butter bred bull of the breed in this country. For stock of this kind, address: H. BOLLERT, Tavistock, R. R. No. 5, Ont.

Holstein Bulls for sale—Springbank

farm is offering two choicely bred Holstein bulls for sale at reasonable prices. For particulars write to: Wm. Barnett & Sons, Living Springs P. O., Ont. Fergus station, C. P. R. and G. T. R.

Ridgedale Farm Holsteins—We have four

bull calves left for sale, from high-testing dams; sired by Imperial Pauline De Kol, whose 15 nearest dams average 26.20 lbs. butter in 7 days. Shipping stations: Port Perry, G. T. R., and Myrtle, C. P. R., Ontario County. R. W. WALKER Utica, Ont.

Glenwood Stock Farm 5

BULL CALVES, fit for service, out of big milking strains, at low figure for quick sale. THOS. B. CARLAW & SON, WARKWORTH, ONT. Campbellford Sta.

IMPORTANT WARNING!

THE ONLY GENUINE AND ORIGINAL EXTRACT OF WILD STRAWBERRY IS "Dr. Fowler's"

This grand remedy has been on the market for sixty-five years, and is, without a doubt, the best medicine known for the cure of

DIARRHOEA, DYSENTERY, COLIC, CRAMPS, PAIN in the STOMACH, CHOLERA MORBUS, CHOLERA INFANTUM, and ALL SUMMER COMPLAINTS.

If an unscrupulous druggist tries to talk you into taking any other preparation when you ask for "Dr. Fowler's" refuse to take it, and insist on getting what you ask for. Price 35 cents per bottle. See that the name, The T. Milburn Co., Limited, is on the wrapper, as we are the manufacturers and sole proprietors.

EUREKA Glass Tank Sprayer



Solution tank is a quart Crown glass jar. If broken, it can be easily replaced for a few cents. Solution tubes are brass. None of the liquid used can be drawn back into the pump chamber, thus the chamber and valves are uninjured. This is the easiest operated and the most effective small sprayer on the market. Inquire of your hardware dealer. Write for our complete catalogue of Sprayers and Garden Tools. THE EUREKA PLANTER CO. LIMITED Woodstock - Ont., 6

WOOL

Let us know how much you will have this season, and the breed, that we may quote you our prices. Don't fail to write us before you sell.

E. T. CARTER & CO.

84 Front St. E

TORONTO, ONT.

Southdown Sheep

Orders taken now for this season's delivery. A few choice lambs and shearlings on hand. Every animal shipped is guaranteed.

Angus Cattle

Write, or come and see my young bulls and heifers. They are going at farmers' prices.

ROBT. McEWEN, Byron, Ont.

Oxford Down Sheep, Shorthorn Cattle, Yorkshire Hogs—Present offering: Lambs of either sex. For prices, etc., write to **John Cousins & Sons, Buena Vista Farm, Harriston, Ont.**

QUESTIONS AND ANSWERS. Miscellaneous.

RURAL TELEPHONE.

A rural telephone company has taken a charter to develop our township. We live on a public road, but a mile from the last 'phone, and they refuse to instal a 'phone for us.

1. Is there a law that will force them?
2. If you cannot answer this, can you tell me where to write for the statutes governing rural 'phones?

Ontario. A SUBSCRIBER.

Ans.—1. Probably not.
2. See your Clerk of the Peace, and ask him to show you the Ontario Statutes of 1912. The chapter dealing with the question is Number 38, "The Ontario Telephone Act," which comes into force 1st July next.

UNSATISFACTORY DITCHING AWARD.

Kindly advise me what can be done in a case like the following: A ran an award ditch in the spring of 1908, which was supposed to have been made before the following September, but was not touched that year. So in the spring of 1909, I bought the farm from A, but the ditch was not made until last summer, 1911. The ditch starts at my west line between B and me, and runs north on my side a little over an acre, and then runs straight east across my place and into C's farm. Now, my farm is three acres wide, and my share of the ditch was the acre running north, three acres across, and two acres on C's farm, all of which was made last summer except the acre running north. B's share was four hundred feet on C's farm; C also had six acres to make on his own land. Now, this ditch starts on the face of a hill at the end of a ditch that B has coming from his land from the end of this ditch. A allowed B to run a small ditch of about fifty feet, a number of years ago, onto his land down the hill, as the land was not cultivated and it did not make any difference. B would have an outlet for his water. Now the land on B's side of the line is about the same level from where the ditch starts to where it turns to cross my place, as it is on my side. Can I compel B to take the ditch on his own side of the fence, as it is no earthly good to me, for it is on the side of the hill, except to spoil ten feet wide of my land a little over an acre long. The ditch is four feet wide, and the line has a stone wall which shows that the ditch must be made at least three feet away, which makes a lot of waste land. I am cleaning the field just to accommodate B, when the ditch could be made on his own side of the fence without any loss to him whatever, as he has a good, wide lane along the line. B also has a culvert on his side just opposite the ditch where it turns to cross my place and where I think all B's water should come onto my side. There was nothing said when the engineer was there as to which side of the line the ditch should be made on only by B, for A was a very easy-going man, and did not suggest the other side of the line.

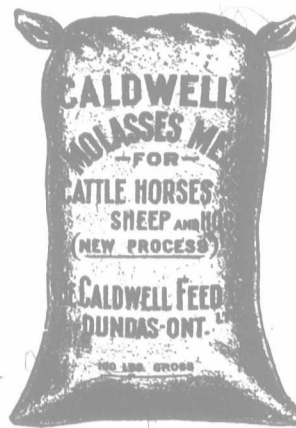
1. If you think anything can be done, how would I go about it?
2. Is there such a thing as ditch or water viewiers?
3. Can an old award on a ditch be broken, and how?
4. Can B compel me to make the ditch which is harm to me instead of good?
Ontario. FAIR PLAY.

Ans.—1. It does not appear to be a case where strict legal proceedings would avail you much. We would advise your seeing a solicitor personally, and having him endeavor to bring about a suitable arrangement of the matter by judicious negotiation.

2. Not in the sense suggested. The person appointed by the municipal council to carry out the provisions of the Ditches and Water-courses Act (Ontario statutes, 1912, Chap. 74), is the one who is proper to deal with these matters of ditching where the parties interested find themselves unable to agree.
3. The Act provides for reconsideration in certain cases, but yours would hardly seem to come within the scope of such provisions.
4. It would seem so—as matters now stand.

97% Digestible CALDWELL'S MOLASSES MEAL

A Short Cut to Results



"You are a loser if not a user."

ARE you fattening your stock for show or sale?
NOTHING can equal our Molasses Meal for this purpose.
USED by all the larger show men and owners of thoroughbred stock.
PUT up in 100-lb. sacks and sold by the ton. Write for prices and literature to:

The Caldwell Feed Co., Limited
DUNDAS, ONTARIO

IMPORTED SHEEP

Those wishing an imported ram, a few choice imported ewes or a few show sheep to make up their show flock, should write me, after this date, to

MOLESCROFT, BEVERLEY, E. YORKS, ENGLAND

C. HODGSON,

Brantford, Ontario

O. I. C.—We offer for sale the **Chester White** boar, Longfellow, register No. 6404; sired by Silver Jack 4341, dam White Beauty 3073. Longfellow weighs between 350 and 400 lbs., was farrowed Oct. 29, 1909; reason for selling is akin to too many of our breeding sows. Price, \$45 for quick sale.

GLEN ATHOL FRUIT RANCH
DAVID SMITH, Mgr. St. Catharines, Ont.

Hilton Stock Farm Holsteins and Tamworths.

Present offering: 6 yearling heifers and several younger ones. All very choice. Of Tamworths, pigs of all ages and both sexes; pairs not akin. **R. O. MORROW & SON, Hilton, Ont.** Brighton Tel. & Stn.

MENTION "FARMER'S ADVOCATE."



Hampshire Pigs PRESENT OFFERING—7 Sows in pig from imported stock. Write for prices. Long-distance 'phone.

J. H. RUTHERFORD, Box 62, Caledon East, Ont.

Registered Tamworths—Merton Lodge is offering Tamworths, either sex, from six weeks to four months old. The true bacon type, having great bone and length. We pay express charges and guarantee satisfaction.
W. W. GEORGE, Crampton, Ont.



Duroc Jersey Swine A choice lot of boars fit for service. WANTED—Twenty dairy calves, seven to twenty days old, grades or pure bred; state price F.O.B.
Mac Campbell & Sons, Northwood, Ont.

Pine Grove Yorkshires Bred from prizewinning stock of England and Canada. Have a choice lot of young pigs of both sexes, pairs not akin, to offer at reasonable prices. Guaranteed satisfaction.
Joseph Featherston & Son, Streetsville, Ont.

FAIRVIEW BERKSHIRES Ontario's banner herd. Prizewinners galore. For sale are: Young sows bred and others ready to breed, and younger ones. A number of young boars coming on. **JOHN S. COWAN, Donegal, Ont.**



ELMHURST LARGE ENGLISH BERKSHIRES Present offering: Select sows. Choice boars ready for service also younger stock, the get of Duke of Somerset imp., and out of imported dams. Satisfaction and safe delivery guaranteed. **H. M. VANDERLIP, Breeder and Importer, CAINSVILLE P. O. Langford station, Brantford and Hamilton Radial.**

Ohio Improved Chester White Pigs—Largest strain, oldest registered herd in Canada. Choice lot of spring pigs; pairs and trios not akin; register; express paid; safe delivery guaranteed.
E. D. GEORGE & SONS, Putnam, Ont.

SUNNYSIDE CHESTER WHITE HOGS—I am now offering some very choice young things of both sexes, of breeding age. A few Shropshire sheep of both sexes. Also Mammoth Bronze turkeys. **W. E. WRIGHT, Glanworth P. O., Ont.**

Maple Villa Yorkshires and Oxford Downs. We offer 30 splendid service boars; 50 strictly choice sows, bred and ready to breed; also ewes of quality bred to imp. rams. **J. A. CERSWELL, Bond Head, Ont**

Hampshire Hogs—We have the greatest prize-winning herd of Hampshire Swine in Canada, bred from the best strains of the breed; stock of both sexes not related. **Hastings Bros., Crosshill P. O., Ont., Linwood Sta., C.P.R., Newton Sta., G.T.R.** Telephone in residence.

Morrison Tamworths Bred from the prize winning herds of England; choice stock for sale; also Shorthorns of the deep milking strain. **CHAS. CURRIE, Morrison, Ontario**



Woodburn Berkshires—We are offering for sale 100 head of young Berkshires of both sexes and any sizes required. We can supply pairs or trios not akin; our Berks are noted for strength of bone, length, depth and quality, conforming to bacon type. Show and breeding stock a specialty.
E. BRIEN & SON, Ridgetown, Ont.

Malted Corn Feed

THE growing demand from wide-awake farmers for concentrated feeds rich in Protein, has led this company to put another Dairy Feed on the market. We have had a careful analysis made of this feed, and had it tested by some of the leading dairies in and around Toronto with splendid results.

The guaranteed analysis is as follows:

Protein... 15 per cent.
Fat..... 3.11 "
Fibre.... 6 "

Compare this with Prof. Day's report on the feed value of coarse grains:

PROTEIN.
Corn... 7.1 per cent.
Oats... 9.1 "
Barley... 9.5 "
Wheat... 9.2 "

In Malted Corn Feed you get, therefore, 100 per cent. more Protein than in corn; 80 per cent. more than in either oats, barley or wheat. Do you see the point? Several dairymen who have tried this feed report an increase in the flow of milk of from 5 to 8 per cent. Would any one want any better proof of the feeding value of Malted Corn Feed than this? It is better than whole pages of theory.

Ask your dealer for a sample lot of this feed. If he cannot supply you, write:

The Farmer's Feed Co.
TORONTO LIMITED CANADA
108 Don Esplanade

**FEED
PRO - FAT**
(Dried Malt)

AND
"MALTED CORN FEED"
AND WATCH THE
MILK FLOW INCREASE

"Good as Gold"

ARE THE
POLICIES
OF THE

London Life
Insurance Company

Head Office:
LONDON, CANADA

Endowments at Life Rates

It is not necessary to die to win. This Company issues Endowment Policies maturing about the expectation of life for the same premium usually charged for Whole Life or 20 Payment Life Policies.

Unexcelled profit results, strong financial position and clean reputation are a guarantee of satisfactory results in the future.

Ask for pamphlets, "Press Comments," and "Endowment at Life Rate"

MENTION "FARMER'S ADVOCATE."

Let me Tell You, Face to Face



"Here is my question:—A \$100 roof gives a \$500 building several years of service. A \$125 Pedlar roof gives the same building 100 years of service, because it is a 100-year roof. Is the extra \$25 wisely spent?"

"I Have Learned How to Make You a Roof That Will Last One Hundred Years."

"I have been a good-roof missionary all my life. I invented Oshawa Metal Shingle for lightning protection. I made improvements in it and got my design perfect after 50 years. My roof was rain, wind, snow, ice, fire, lightning and sun proof. I still needed one thing—the longest lasting metal—non-rusting. At one step, when I found this metal, I achieved a roof to last you a whole century."

"There is No Building Made Right, If the Roof is Not Perfect."

"Guard a building on top, and you guard the whole building. The weather beats fiercest on top. I tell you, no building ever made is better than its roof. I want to see you build a good roof. Skimp the walls, if you skimp anything. See your roof is right. Your good roof gives three-fold building service.

"Why, in 50 years, a little thousand-dollar barn protects \$75,000 worth of hard-harvested product. A poor roof can easily rot, and waste, and lose for you twenty times its cost—twenty times the cost of a Pedlar Oshawa Shingle roof. With most roofs lightning may burn all—with my roof you can defy lightning to try its worst on your barn."

"I Make a Roof that Answers Every Roof Demand You Can Think Of."

"My roof has 'give' in it. It can expand in the sun. It can shrink in winter cold. It does this without drawing the nails that hold it. It is ice proof. Frozen snow cannot gouge it open. It is clean. Dirt cannot rest on it. Roof water gathered from it is pure. My roof covers its nails. They cannot loosen or rust. My roof is not too heavy or too light—it is ventilated.

"As a result, wind or storms cannot lift it bodily, like a shingle roof. It is spark proof and fire proof. It is lightning proof. It still protects a building if the frame sags. A man can lay it without special tools. He can only lay it right, the right way. Every protection, besides the protection against rust, comes with my roof. You lay my roof on ordinary framing.

"Why Do You Get Such a Good Roof from Me ALONE?"

"You can't get a roof deal like mine anywhere else in the world. This is because other metal shingles haven't my design or metal. Other metal shingles haven't my years of pioneer knowledge to back them. They haven't my ground-floor patents—my skill—my earnest and hard work of years on the one prob-

lem—a perfect metal roof. I, only, can make you a roof with the right metal in it to back the wear, because my shingle metal is the only one that make the deal honestly possible."

"Can You Lay It, and Lay It Right? Yes!"

"You, a tinsmith, anybody, can lay my roof— whoever can handle a hammer. I spent years in making my Shingle so it couldn't be laid wrong. There isn't an exposed nail, after you are done. The roof is ventilated so it is almost cyclone proof. My roof is earthquake proof, if your building under it is. It is settlement proof, sun proof—lodged ice cannot open it.

"Yes, sir, you can lay an entire Pedlar roof yourself in my Oshawa Shingle, while you are patching a few shingles on a leaky cedar roof. When you figure its service, the price of my roofing is ridiculously small. My price is very fair. Your bill for my roof is kept down, because folk all over the world are also buying. Big output means big quality at little price.

"Every Roof Owner Should Have the Help in My Big Roof Book FREE."

"My roof book, 'Roofing Right,' ought to be in your hand this very minute. I will be glad to send you a free copy. The book shows roofs, of course. It shows good buildings under them. You can get a score of hints for barn design, planning and arrangement, even if you don't buy my shingle.

"But the main point about my book is that it tells you all you want to know about Oshawa Shingles. I would like you to know its goodness. I am proud of the perfection, excellent quality, fine service, easy laying, beauty and adaptability of my clean Oshawa Shingle. It is a bigger thing than it looks to give any man weather, fire, lightning, and time-resisting protection rolled into one article. My 'Roofing Right' Book tells you all about a roof that 'Makes good' for 100 years."

"Send Me a Post-Card To-day."

"Get my 'Roofing Right' Book to-day. A post-card will bring you the whole story of my perfected Oshawa Shingle. Ask one of my branches near you. Or write me direct. Remember you better any building three-fold if you put the best roof you can get on it. People on the other side of the earth know this. You write me. *J. H. Pedlar*

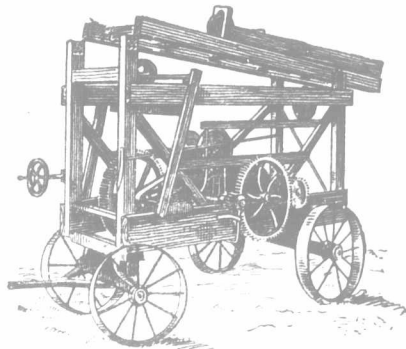
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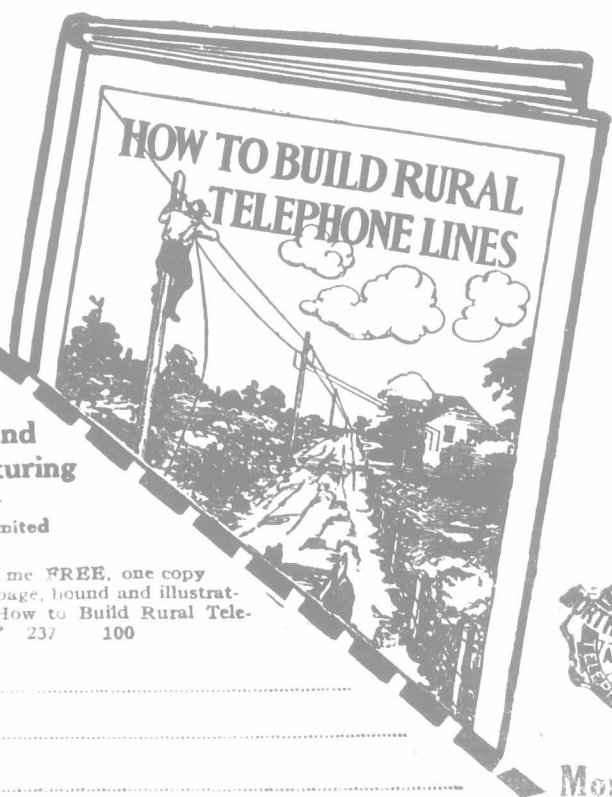
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