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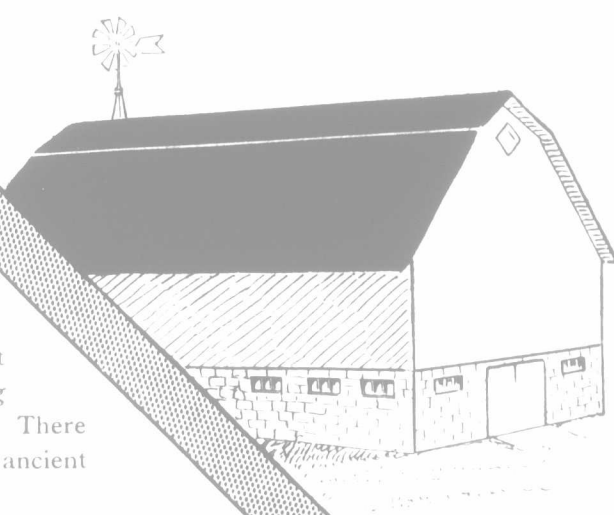
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Vol. XLV.

LONDON, ONTARIO, MAY 12, 1910.

No. 920



Has an
Asphaltum
Saturation—
That's why it will out-
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Thousands of years ago the ancient Egyptians used pure Asphaltum for protecting roofs and ship-bottoms against water and weather. There is an authentic case of the discovery of the hull of an ancient vessel that had lain on the bottom of the sea for ages.

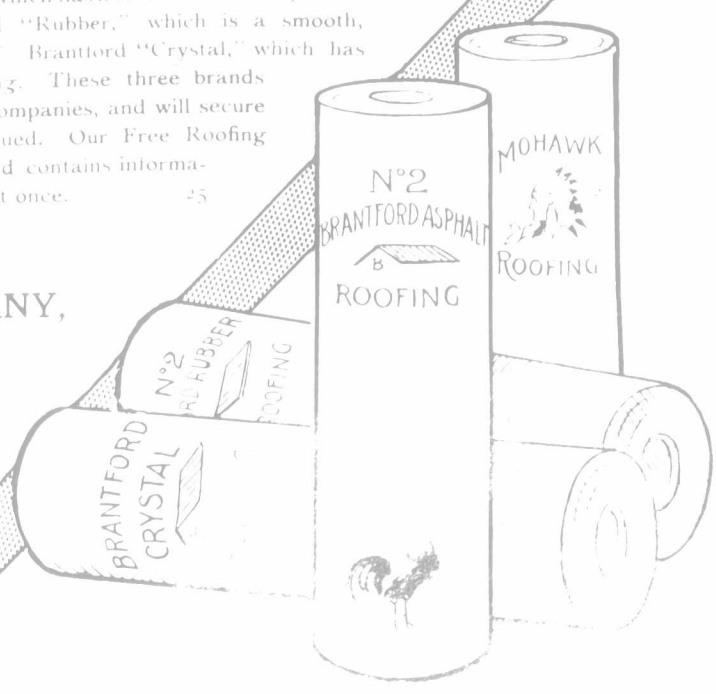
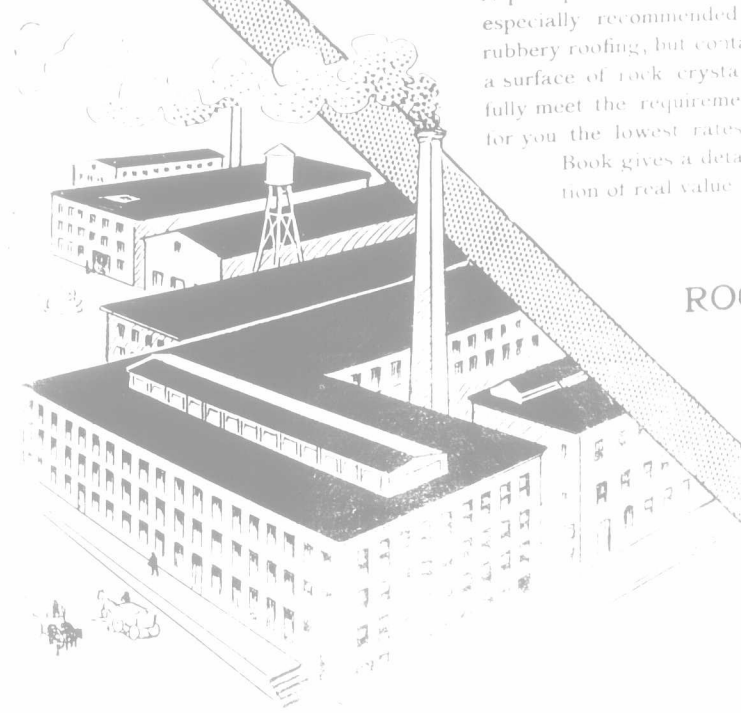
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An inspection of the vessel showed that its bottom was coated with Asphaltum and was in a fair state of preservation. Nothing in the way of paints, mysterious gums and compounds has ever been originated which has stood the test of time and weather like Asphaltum. Asphaltum is what we use as the saturation for Brantford Roofing. Asphaltum, you understand, is the very highest grade of Asphalt—the same class in the world so you know how durable it is. Pure Asphaltum, such as is used in

Brantford Roofing, is but little affected by heat or cold, or even by acids or alkali of considerable strength. Certainly there is no other saturation equal to Asphaltum, yet gums and paints and compounds are used for various brands of roofing simply because they cost less. Besides Pure Asphaltum we use the highest grade of wool felt for the basis of the roofing. The Asphaltum saturation is done under tremendous pressure, so that every fibre of the wool is thoroughly impregnated with the Asphaltum. Brantford Roofing, with the Asphaltum saturation,

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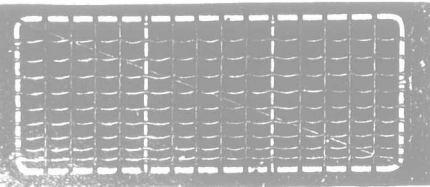
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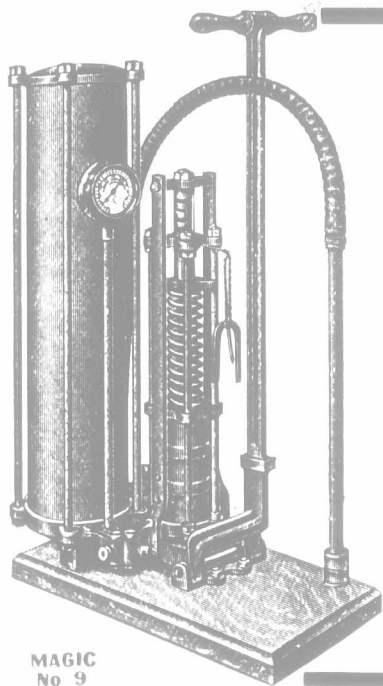
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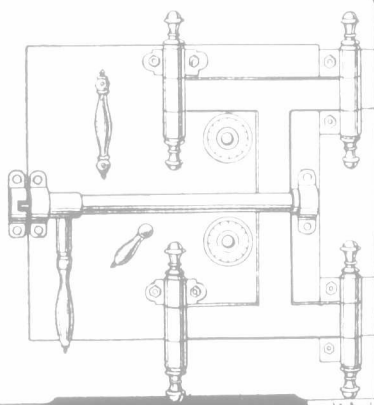
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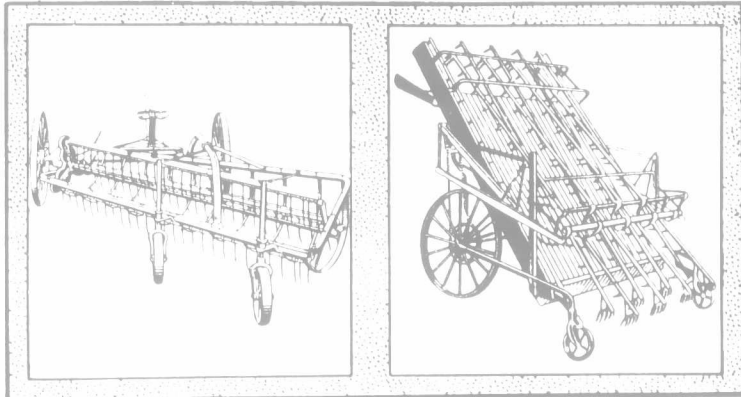
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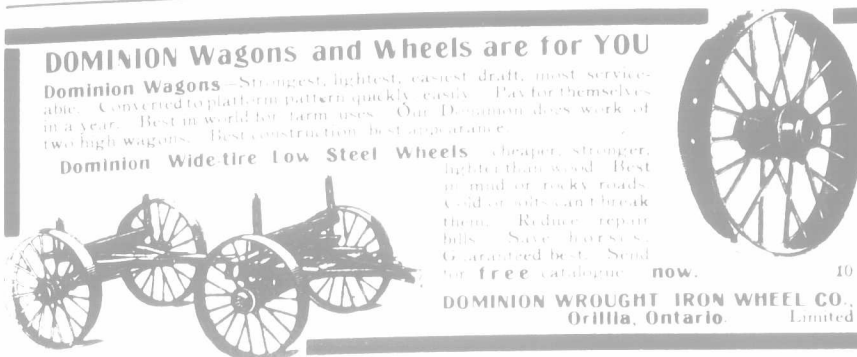
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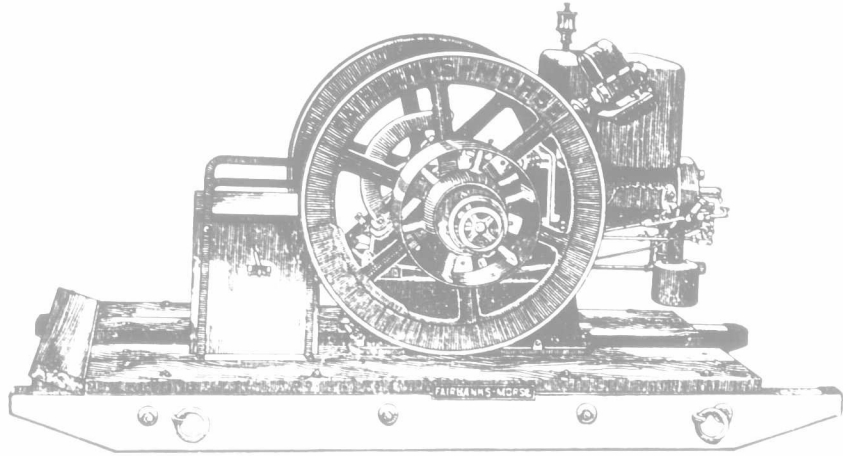
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There is a safe way to avoid this—a certain way to a satisfactory purchase. Choose an I H C Wagon, either a

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In doing so you buy certain satisfaction. You get proved quality. You get a wagon that thousands of farmers have tried out under all conditions of wagon service. There is a lot in the name of a wagon. And in the names Petrolia and Chatham there is everything you could wish for in wagon service and quality.

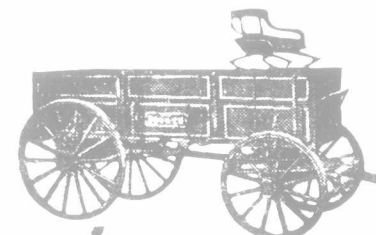
When you put good money into a poor wagon you are constantly reminded of it. And you continue putting money into it through time lost by breakdowns and inefficient service as long as you have it.

When you buy an I H C Wagon you make an investment that pays you big interest in efficient service for many years.

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The Chatham and Petrolia line includes Farm, Freight and One-Horse Wagons. A wagon is no better than the material entering into its construction. Chatham Wagons are as good as the best material, the best construction and the best workmanship can make them. They have hard maple axles, oak bolsters, sand boards, reach and lawns, oak rims, spokes, hubs, oak or black birch, white ash trees and yoke, white ash or oak tongues. The material is dried under cover and carefully inspected. As soon as the machine work is done on all the gearing, each part is soaked in boiled linseed oil so that every grain, mortise and tenon is properly protected. The wheels are subjected to the same treatment before the tires are put on.

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Vol. XLV.

LONDON, ONTARIO, MAY 12, 1910

No. 920

EDITORIAL

We heard the other day of an alfalfa mill in Kansas which has received 50 carloads of alfalfa hay in one day, to be ground up into alfalfa meal.

"It is the details which do not cost much that make all the difference in successful calf-rearing," remarks a recent correspondent. "Hear! hear! One of the truest things ever written."

"If ever degrees are conferred on those who study in Nature's University," says Walter Simpson, truly, "we will expect the skilful dairyman to get the most letters after his name."

More steam and gasoline tractors are being purchased this season than ever before for use on the farms of Western Canada. Manufacturers have difficulty in supplying the unexpected demand.

"It will be a fine day for the country," writes a British Columbia man, "when farmers come to a full realization of what alfalfa, this queen of storage plants, will do for them. Ten years ago, my gross income on this place (110 acres) was about \$1,000. Alfalfa has raised it to \$4,000."

Thirty different kinds of weed seeds were found in 13 samples of alfalfa seed examined by the Branch Seed Laboratory of Purdue Experiment Station, Indiana. One sample of seed, if sown at the low rate of 16 pounds per acre, would distribute over a hundred and seventy-five thousand weed seeds per acre! Examine the seed you sow!

"In no season," says Mr. Caesar, "should there be fewer than three sprayings for potatoes, and in most seasons there should be from six to eight." Such spraying is designed to protect not merely from bugs, but flea beetles and blight besides. Blight, and the rot resulting from the late blight, works far more disaster than many of us realize.

The cost and, in some measure, the consequences of militarism were tersely expressed by Sir Richard Cartwright recently. "I recoil with horror," said he, "from the reflection that four of the richest nations on earth spend two-thirds of their net revenues in warlike preparations, while many of their subjects do not know from one day to another where they will get their bread."

In one of the fruit sections of California, where all the rain that falls comes in winter, and where even alfalfa is irrigated, it is possible so to conserve moisture by surface cultivation in the orchards and vineyards that a full crop of fruit is produced. The soil in some sections is what is called adobe ground, which, if not worked up at once after being plowed, becomes so hard that an iron stake can scarcely be driven into it. Yet, by prompt and repeated cultivation, a fine dust mulch is maintained on even this ground. It ought to be said that irrigation of orchards and vineyards is practiced to some extent, but unless rainfall in winter has been deficient, it is yet a question with many fruit-growers whether the extra returns are sufficient to justify the expense. Certainly, in Canada, irrigation by cultivation is the sound policy in orchard management.

Ontario East and West.

That Eastern Ontario is less progressive than the Western part of the Province, is the conclusion reluctantly arrived at by J. Lockie Wilson, Superintendent of Agricultural and Horticultural Societies, who himself hails from the East. For instance, out of 65 spring horse shows in the Province this year, only five were held in the large territory east of Toronto. Of the 64 horticultural societies, all but twelve are established in the West; while, again, in the field-crop competitions, the numbers stand 22 east of Toronto, and 56 west.

Will some reflective genius arise to explain? That Western Ontario is settled with superior stock, we would not for a moment suggest. Is it that the more moderate climate of the Western district, favoring, as it does, a somewhat wider range of crop production, results in a broader and more all-round development of her farmers through the educational scope afforded by reasonable diversity of interests? Is the attention and interest of the farmers in Eastern Ontario tied too exclusively to the tail (or udder) of the dairy cow? Or is it that the East has been denied, in some measure, the privilege of close personal touch with the Ontario Agricultural College, and the influences that radiate from it? We suspect there are lessons of considerable importance to be drawn from a comparison such as indicated by Mr. Wilson's figures. In this connection, however, the fact should not be overlooked that in certain districts of the Eastern counties unmistakable evidences of progress are to be seen, just as in the West many sections may be found to which Enterprise seems a complete stranger. We must be careful, therefore, in drawing inferences, not to take the exceptional as typical of the average. Bearing this point in mind, let us hear from some of our Eastern Ontario readers, as well as from others.

The Best Field-crop Competition.

The grand alfalfa contest planned in Saskatchewan, whereby the growing of this magnificently valuable crop is to be encouraged by an offer of cash prizes aggregating thousands of dollars, suggests the feasibility of exploiting this queen of fodder crops through the Agricultural Societies in Eastern Canada. The fact that well-cured alfalfa hay contains nine-tenths as much digestible protein as bran, and that a ton of it is worth, at a conservative estimate, three quarters as much as a ton of bran for balancing up rations of carbonaceous feed, like corn silage, straw, and timothy hay, preaches eloquently the wisdom of growing some on every farm where patience can make it succeed. Add the further facts that

(a) It is a perennial, producing many crops from one seeding.

(b) It commonly produces three cuttings a year, aggregating, from a good stand, five tons per acre per annum, with little expense, but the labor of harvesting.

(c) It is a legume, drawing from the atmosphere probably from one to two hundred pounds per acre of nitrogen, which, if purchased in the form of commercial fertilizer, would cost anywhere from \$18 to \$35.

(d) It has a tremendously deep root system, commonly ranging eight to twelve feet deep in hard clay, and often much more than that, bringing up from the soil phosphates and potash beyond the reach of annual crops.

(e) When fed to animals it enriches the manure five or six times as much as would the crop of an equal amount of wheat or corn.

(f) It is especially adapted to hard clay hillsides, which cannot be advantageously employed for rotation of crops.

(g) It is about the best subsoiler we have.

(h) After a stand of alfalfa the land is filled with nitrogeous humus, and capable of growing better crops of corn, potatoes or grain than it probably ever grew since it was new.

(i) A limited acreage of alfalfa grown, and fed judiciously to good stock, as a substitute for bran, can be easily made to yield a clear annual profit per acre over and above harvesting and land rental of forty dollars per acre. With an increased acreage, the return would be proportionately less, but should not, usually, from a good stand, run below a clear profit of twenty or twenty-five dollars per year for a reasonable area, say 15 acres, on a hundred-acre farm. Much depends, however, upon the acreage sown and the use made of the product.

Consider these facts, and ask yourselves whether the farmers of Canada are not missing a golden opportunity by failing to make more general use of alfalfa. J. Lockie Wilson, Superintendent of Agricultural Societies for Ontario, is taking hold of the subject, and intends to push it hard. He has suggested that it should be adopted by some societies in the standing field-crop competition. The idea is a good one. Indeed, the Government would make no mistake in setting aside a liberal appropriation for the special purpose of encouraging alfalfa-growing all over the Province, and some of the other Provinces might well follow suit. Alfalfa is a splendid thing. Take hold!

Winter Cattle-feeding in Alberta.

A net profit of over \$11 per head on steers fattened for three and a half months on Alberta hay and grain, is reported as the result of a very interesting experiment in cattle feeding which has been carried on during the past winter at the Lacombe Experimental Farm, Alberta. The object of the experiment was to throw light upon the possibilities of profitable winter fattening of stock upon the fodder and grains obtainable in that district. Heretofore, the winter in Alberta has been merely a period of carrying over cattle, the weight becoming less, rather than greater, as the season wore on, reliance being placed upon the summer pasturage alone for putting on fat, and getting them into condition for sale. The results of this experiment are so favorable as to make Alberta farmers stop and think, and possibly embark in the business of holding their grass cattle, instead of selling them in the fall, when beef is cheap, and of fitting them for sale in spring, when prices are high, and beef scarce. This would be a radical change from the ranching style, but would be a great thing for Alberta farmers. The dread of soil exhaustion would be removed, employment in winter would be furnished, and another avenue of income opened for Albertans who are already favored in that respect.

The cattle in the experiment numbered eighteen, and were ordinary grade steers, bought by G. H. Hutton, Superintendent of the farm, at an average price of \$3.66 per hundred. The average weight when bought was 1,130 pounds. They were fed on an open corral on timothy and prairie hay and a mixture of frozen wheat, barley and oats, ground together, costing two-thirds of a cent per pound. The feeding period lasted 109 days, and the average gain was 188 pounds per head, a daily average gain of 1.72 per cent. The cattle, when sold, March 30th, were in fine form, averaging 1,318 pounds each, and doing me out well. A price of from $\frac{1}{2}$ to $\frac{1}{4}$ cent higher than that usually paid for the best beef was received, the cattle being

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 or 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. 4. THE FARMER'S ADVOCATE is sent to subscribers until an explicit order is received for its discontinuance. All payments of arrearsages must be made as required by law. 5. THE LAW IS, that all subscribers to newspapers are held responsible until all arrearsages are paid and their paper ordered to be discontinued. 6. REMITTANCES should be made direct to us, either by Money Order or Registered Letter, which will be at our risk. When made otherwise we will not be responsible. 7. THE DATE ON YOUR LABEL shows to what time your subscription is paid. 8. ANONYMOUS communications will receive no attention. In every case the FULL NAME and POST-OFFICE ADDRESS MUST BE GIVEN. 9. WHEN A REPLY BY MAIL IS REQUIRED to Urgent Veterinary or Legal Enquiries, \$1 must be enclosed. 10. LETTERS intended for publication should be written on one side of the paper only. 11. CHANGE OF ADDRESS. - Subscribers when ordering a change of address should give the old as well as the new P. O. address. 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.

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sold to the highest bidder for 5 1/2 cents per pound, less 5 per cent shrinkage at point of shipment.

The cost per hundred pounds of gain, \$7.12, seems very low, but Eastern farmers will note that feed values are much less in the West than with them. Prairie hay was valued at \$6 per ton, timothy at \$7, and the grain ration at 1.01 5/7 cents per hundred. A notable statement made is that the value of frozen wheat, fed and marketed as feed, was \$1.28 1/2 per bushel. That is much greater than what is going for wheat of any kind in that section, No. 2 Northern being worth about 85 cents per bushel. We submit a few of the figures given.

COST

Table with 2 columns: Description and Cost. Includes 18 steers, 26,216 lbs. prairie hay, 9,123 lbs. timothy, 20,810 lbs. frozen wheat chops, 145 lbs. salt.

RECEIPTS

Table with 2 columns: Description and Receipts. Includes 18 steers, total weight 23,720 lbs., profit on two pigs following steers.

Average profit per head, \$16.97; average profit per head after covering loss of one steer, \$14.35.

In the above no allowance is made for labor and interest on money invested, the value of manure produced being considered equal to the cost.

on the whole, it is little wonder that such a splendid return is secured, and that the cost of an animal is recovered in the first year, as in Alberta, are common. The winter feed ration and that being mostly corn to be heat used. The practice?

Green Manuring.

"I have a field which I intend to summer-fallow," writes a correspondent, and I want to sow something on it to plow down for a fertilizer in time to sow it in fall wheat. What is the best thing to sow for this purpose? Is rape good to sow for plowing down to enrich the soil, and what time should it be sown, and how much per acre? Is buckwheat good as a fertilizer plowed down?"

Much the best crop we know of for this purpose is common peas. In an experiment conducted for four years at Guelph, wheat grown on land into which a crop of peas had been plowed as green manure, produced an annual average of about 22 per cent more wheat per acre than land where a crop of buckwheat had been plowed under, the comparative yields being as follows: Twenty tons farmyard manure per acre on bare fallow, 10.9 bushels; crop of peas plowed under, 36.1 bushels; bare summer-fallow, 33.8 bushels; crop of buckwheat plowed under, 29.6 bushels. We are under the impression that rape also was tried, and gave results inferior to buckwheat, though we find no published records of this fact.

These experiments indicate clearly the advantage of a leguminous over a non-leguminous crop like buckwheat or rape. They do not, however, do justice to the green crop, compared with summer-fallow, because the crop of wheat harvested is not by any means the sole consideration involved. The effect on subsequent crops is of even greater importance, because more lasting, and in this connection it is reasonable to expect that the addition of humus through turning under of a green crop would give much better results in the end than the burning up or dissipation of humus which takes place to some extent in a bare fallow. Bare-fallowing liberates much fertility, but only a portion is utilized by the ensuing wheat crop. Judicious green manuring, where souring of the soil is guarded against by liming or otherwise, conserves fertility and increases humus, so that in the end it commonly proves much the more profitable, even when the material does not decompose in time to produce a marked effect on the next crop sown.

County Roads and Autos.

There are seventeen county roads systems in the Province of Ontario. Leeds and Grenville have recently established a system of 217 miles, to be improved at a total cost of \$300,000, towards which the Province contributes the usual one-third, the other \$200,000 being raised by de-bentures.

"I think the real reason the municipalities do not come in more rapidly," remarked W. A. MacLean, Provincial Engineer of Highways, to "The Farmer's Advocate" lately, "is a misunderstanding as to the cost. As a matter of fact, the average tax entailed by the adoption of a county roads system rarely exceeds three or four dollars a year on a hundred-acre farm. In Leeds and Grenville, the annual levy will be about \$1.10 per thousand dollars assessment, and the assessment is for only about half the value."

And the autos?

"The automobiles should be pretty nearly taxed and subjected to strict regulation as to speed and otherwise. Massachusetts collects an amount running up into the six figures annually from automobile taxes, the average tax amounting to probably \$15 per car, according to the horsepower. The Lloyd George budget provides a heavy tax on autos, running from \$25 to \$300 per annum on each auto, graded according to horsepower, up to 60 h.p.

An automobile tax should be proportionately much heavier on high horsepower than on low horsepower machines. The principal injury to the roads results from the heavy touring cars running at high speed.

The present automobile situation in this country would be intolerable were it not for the fact that it is leading the way to the advantageous application of motor power to useful trade. This is gradually coming to pass. Farmers are now commencing to use automobiles for their convenience. One farmer up at Arkona, for instance, makes daily trips to Sarnia with produce. But a stricter regulation of the trade, as advocated, monetary reward can hardly compensate for its detriment to life or limb. In Massachusetts, the law is so strict and while they do not enforce it, it is so strict when there is no chance of danger, that it is held to be possible for the safe use of the automobile and possible to have his horses, etc.,

HORSES.

Effect of Racing on Type of Horse.

Editor "The Farmer's Advocate":

I have read with interest Mr. Hendrie's comments on the views submitted by me to the Parliamentary Committee in connection with Mr. Milder's bill. A brief summary may help to set forth the points at issue in clearer light. The subject may be considered under three headings:

- 1. Would the general introduction of Thoroughbred blood improve horse-breeding in Canada? 2. What is the real value of the Thoroughbred cross? 3. Does racing develop a desirable type of Thoroughbred or Standard-bred?

Under the first heading, my position is, that the draft type is unquestionably the most valuable for Canada, and that it should be our aim to make draft horses as characteristic of the Dominion as they are of Scotland. I pointed out that the introduction of Thoroughbred blood would be entirely inconsistent with an attempt to grade-up stock to a draft type, as it would reduce the size, injure the type, and make animals otherwise less valuable for draft purposes. With this, Mr. Hendrie agrees. To the vast majority of Canadian horse-breeders, Thoroughbred blood would be entirely valueless. How very, very small a proportion of Canadians, outside of members of the jockey clubs, and their friends, desire to improve their stock by introducing Thoroughbred blood, is shown by the trifling number of Thoroughbreds imported for breeding purposes, and by the unwillingness of farmers, in some sections, at least, to use that blood, even when brought to their doors. It is well to realize that, so far from Thoroughbred blood being of any value to breeders generally, only a comparative handful, outside of those who raise race-horses, desire it at all.

Mr. Hendrie says: "I quite agree with Mr. Macaulay that the heavy-draft horse is the staple horse for this country, but it does not necessarily follow that other breeds for lighter work should not be encouraged as well, and at least the opportunity given to some farmers who wish to follow that line of improving and keeping up the lighter breeds of horses."

Have not all farmers that opportunity now? I myself raise Hackneys, and I know of no obstacle. I would be glad to be referred to any section of the bill which would prevent "at least the opportunity being given to some farmers who wish to follow that line of improving and keeping up the lighter breeds of horses," as desired by Mr. Hendrie. I myself can find nothing in the bill bearing on this subject at all. Mr. Hendrie, no doubt, however, claims that such farmers should be "encouraged," by permitting betting at races. The argument is that Thoroughbreds will not be bred or imported extensively, if betting be prohibited. What a confession! It is an admission that the farmers and horse-breeders of Canada do not value the Thoroughbred sufficiently highly to import or raise animals of that breed for their needs, outside of the racetrack, and that if betting be prohibited, the breed will be largely or entirely discarded. Either, therefore, Canadian breeders are foolish in not recognizing the merits of the Thoroughbred, or those merits are not as great as some advocates of the breed claim. Each reader can make his own choice of these alternatives.

The Thoroughbred has been an important factor in improving several breeds, the Hackney included. Quite true, but if we are to go back to the origins of breeds, why should we stop with the Thoroughbred? He, in turn, derived his excellence from his Arabian ancestors. Why not recommend an Arabian cross? The fact is, we have to deal not with ancient history and with theories, but with the various breeds as they are to-day, and with the actual results which to-day are seen to follow the introduction of Thoroughbred blood. We also have to deal not with the Thoroughbred of fifty or seventy-five years ago, but with the modern type, to which racing has reduced the breed.

I admitted, and again admit, that the Thoroughbred and Standard-bred have grit, ambition and speed, but, unfortunately, they also too often have small size, poor type, and uncertain tempers. Thoroughbred blood is required to raise hunters and military horses. That explains why he is desired by the Governments of Continental Europe. But how great is the demand for military horses in Canada? It is also true, as claimed, that mares with some warm blood give better foals, to a Hackney, sure than cold-blooded mares. How large a proportion of the foals of the country are this bred? And what an insignificant role the Thoroughbred here plays! His supporters are guilty of a serious omission when they attach importance to this trifling fact. Certainly, Hackney mares, bred Thoroughbred mares will be better suited to that use of breeding the Thoroughbred cross, we cannot get out of the Hackney, and we cannot get out of the Hackney, to point out the limits

within which Thoroughbred blood is valuable, solely because of the extravagant claims which have been made for it in certain quarters. A far more important question is the effect of racing upon that breed itself. Does the modern style of racing develop a desirable type, either of Thoroughbred or Standard-bred? This question must, I think, be answered in the negative. All that is needed in a race-horse is ability to cover a short distance at high speed, drawing or carrying as little weight as possible. We are all more or less familiar with the type thus developed. No wonder Hon. Sydney Fisher, in his evidence, characterized some of these racing machines as "weeds." We want something more than mere grit and ambition, even for light horses. We want substance, beauty, style, action, and these qualities the modern race-horse cannot give us.

That racing does not develop a desirable type is, I think, clearly shown by the fact that in England it has been found necessary to establish the Hunters' Improvement Society, with its own stud book and annual shows, in order to develop a more powerful type of hunter; and that the United States Government has established a department in Colorado to develop a strain of carriage horses with more substance, beauty and action than the ordinary Standard-bred; and another station, in Vermont, to resuscitate the Morgans. These facts seem to prove conclusively that racing does not develop a desirable type. Mr. Hendrie has entirely ignored these vital points. If we wished to introduce Thoroughbred blood, the racing type is not the best. We should get the heavier, more substantial horses, even though they could not win races.

I am exceedingly sorry to differ from Mr. Hendrie, but think I am justified in closing this letter, as I did my previous one, by saying: "I have no objection to racing as such, but, for the reasons given, I do not myself think that the encouragement of racing, by permitting betting, would have any beneficial effect whatever upon horse-breeding in Canada."

T. B. MACAULAY.

Montreal, P. Q.

Mares Losing Their Milk.

Editor "The Farmer's Advocate":

I quite agree with our friend from Leeds Co., as to learning from experiences of others, but I fear his experience in this line might certainly be termed the "dark side." But, cheer up, brother farmers, "there is a silver lining to every cloud." In the year 1907 I bred my mare, which was a grade Clydesdale, four years old, and weighing about 1,600 pounds, to a pure-bred Clydesdale stallion. This was her first foal, and she just went the eleven months and two days. For more than two weeks previous to her foaling she was losing her milk, similar to the mare spoken of by our Leeds Co. friend. Well, she had a fine filly colt, which was good and strong, and has done well ever since, about which I will say a few words later.

In the year 1909 I bred this same mare to the same stallion. This time her milk ran from her same as before. She had a horse colt which was on his feet before the mother. He also did well at ten months old he weighed 905 pounds, and I sold him for \$150, to go to Saskatchewan, and he ended there in good order.

With the exception of when she was nursing the foals, she worked all the time.

Now, a few words as to the filly of 1907. She is two years and nine months old, weighs 1,770 pounds with a halter on, is in foal to a pure-bred stallion, and is within a month of her time, is still working at different kinds of work on the farm.

So now, dear brothers of the soil, cheer up for our mare and foal may be O. K., which I sincerely hope they will be. BROTHER FARMER, Russell Co., Ont.

Four-horse Eveners and Lines.

Below will be found cuts, with description, of two different four-horse eveners sent in by two of our subscribers. In Fig. I, sent in by John Cameron, Huron Co., Ont., by an ingenious arrangement of pulleys and chain, it is claimed that the off horse can walk in the furrow, and yet there will be no side draft. Fig. II, sent by R. J. McGaghran, Renfrew Co., Ont., will be understood from the cut and description. Mr. McGaghran also sends a sketch, Fig. III, of his method of fitting up four-horse lines, with short description. "The Farmer's Advocate" readers who have not owners of their own, will be able doubtless to get valuable hints from these contributions.

Editor "The Farmer's Advocate":

Nothing in your issue of April 11th, 1910, escaped me. W. Mc. wants to know if there is a four-horse evener which can be used on a two-furrow plow, with off horse in furrow, and other horses on sod. I submit the drawing (Fig. II.), Have worked the evener last fall, with entire satisfaction, on a walking two-furrow plow, and do not see why it would not work with tongue. I do not know what the exact length of the three-horse evener should be, as mine was off a sulky plow, and was a little too long. The fourth horse's singletree will lap over the third horse's singletree a couple of inches.

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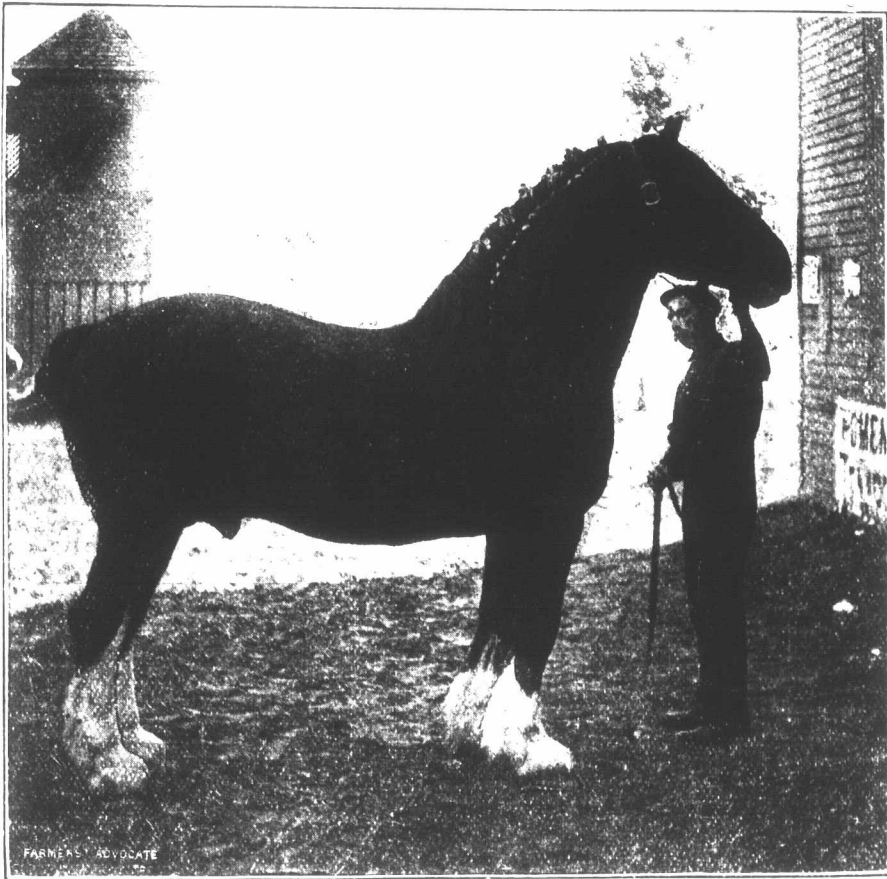
For four horse lines (Fig. III.), remove lines from inside team, and take check lines from these and put them on outside lines, lengthening them by snapping spreads of inside team to the ends. Pass these lengthened check lines over the back of second horse from each side to the bit of third horse. Next, tie the halter shank from outside horse's bit to second horse's hame rings, and the lines are complete. Renfrew Co., Ont.

being attached to B, and the other end can be wrapped around beam of plow at any convenient place, usually where the coulter is, and must be hitched up fairly tight, so that there will not be too much slack when turning to the left. This evener will work on any make of sulky plow, and there will be no side draft.

Huron Co., Ont.

JOHN CAMERON.

hinder, mower, etc.; C is a strong doubletree, 5 feet 4 inches long, and from right end to center of first pulley is 7 inches. From center of first pulley to D, where plow-head clevis fastens, is 15 1/2 inches. Also, from center of first pulley to center of second pulley is 21 inches. At left end of doubletree, C, bore three holes, first one 2 1/2 inches from end, second hole 2 inches from first one, and third hole 2 inches farther on, and fasten



Prince Romeo (imp.) (8144).

Clydesdale stallion, foaled June, 1888. Owned by Charlton & Henderson, Dundee and Belton, Ont. Prince Romeo and Prince of Carrihan (8134), foaled the same year, are the oldest and probably the only living entire sons of Prince of Wales (663).

clevis in whichever one is found to be best. The two pulleys on doubletree, we got off an old horse-power, such as are found on ends of arms. The chain passing through pulleys will work more satisfactorily if links are not too large, one end

horse's bit to second horse's hame rings, and the lines are complete. Renfrew Co., Ont.

Farmers in Manitoba have been paying as high as \$700 a pair for good heavy draft geldings for farm work. Of course, this price is exceptional, but the fact that it was paid is significant.

LIVE STOCK.

Our Scottish Letter.

It is more than time I was keeping readers of "The Farmer's Advocate" informed as to matters in the Old Country. We have had a splendid seed-time, and I gather from Canadian correspondents that you have been equally favored by Providence. Gentlemen of a reminiscent turn of mind are of opinion that no such seed-time has been known in Scotland since 1868. One just remembers that season. It was followed by a beautiful summer, and a phenomenally dry harvest. Possibly that year all through was too dry, but this season so far has been everything one could desire. To day, and on several days of this week we have had showers and a low reading of the temperature, but, taken all in all, we have nothing to complain of. March was fine. May, it opened with work far in arrears, on account of heavy rains during January and February; it closed with farm work generally as far advanced as anyone wished it to be, with flockmasters in excellent spirits, on account of the condition of the ewes, the abundance of milk, and consequent favorable prospect for the lambing season. No one honestly has any ground of complaint against Providence so far as 1910 has gone.

The month of March generally sees the close of the educational season. All the Agricultural Colleges of which Scotland now boasts, three, have had successful seasons. The benches in Glasgow, Edinburgh and Aberdeen have been crowded, and developments are taking place all the time. For a long time the attempt to do something for the Crofters and small holders in the north of Scotland. These are a special charge upon the Aberdeen College, and the problem is how to refer to help put up improved methods of agricultural work. The plan has been adopted of small groups of crofters, being given the opportunity to work with the college, and to be encouraged as an organized body, and to be able to see the way to improve their own crofts, and to be able to

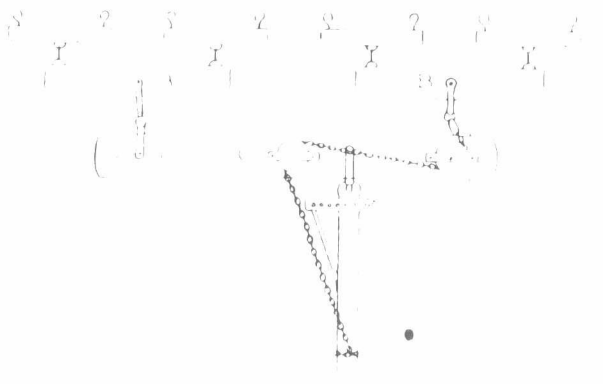


Fig. I



Fig. II

back, with well sprung, deep ribs, and a commanding air when he walks that stamps him at once as an impressive and prepotent sire; and it is this very prepotency that has carried the Lincoln sheep to the very top, and has made it for years by far the highest-priced sheep in the British Isles. The breeders and flock-owners of the Argentine Republic have long since learned that there is no other breed so valuable for crossing on their native flocks as the Lincoln, and for years they have scoured Britain, and taken almost every available sheep of this breed; and so keen is the demand, that, in July last, 18 rams, at the Riby Grove sale, averaged \$430 each, one ram bringing over \$3,000, and more than once \$5,000 has been paid for a single animal of the breed. The ranchers of the Western States have also learned that the Lincoln stands pre-eminently at the front as a breed for crossing on their common stock to get that good, even carcass of mutton and heavy fleece of wool, and, in consequence, there has been a continuous and heavy draft made on the Canadian flocks. In fact, so strong has been the demand from the West, and the prices so extremely high in England, the Lincoln has, unfortunately, not been as widely scattered or extensively bred in Ontario as many of the other breeds. Notwithstanding this, they have been ever able to more than hold their own when they entered the show arena, and for a dozen years they have been four times as often champion of the long-wool classes at the International Cattle Show, Chicago, as all other long-wool breeds combined, and at our own great winter show, at Guelph, last December, they again demonstrated their superiority as a mutton sheep by carrying on the coveted ribbon for the best animal in the long-wool classes, as they did also, at the Southfield Show, in England, in 1909.

Much credit is due to the Canadian breeders who have so nobly shown to the breeders of the American continent the sterling qualities of the Lincoln sheep, and I may mention in this connection the names Geary, Oliver, Patrick, the late Wm. Walker, the Parliaments, the Robsons, and others, but to that veteran breeder, John T. Gibson, of Beaufort, Ontario, who was almost a vicar in the show ring, and who year after year at the greatest shows on the continent walked from the arena with the highest laurels gained to the Lincoln banner, perhaps the greatest honor is due.

THE FARM.

Growing Timothy and Clover Seed

Editor "The Farmer's Advocate":

"The Farmer's Advocate" is certainly a great paper, and I wouldn't be without it. In this section of the country farmers have not given much attention to the growing of timothy and clover seed. Most of the seed used is bought in the open market. This condition is caused, no doubt, by ignorance on our part regarding the proper curing and methods used. We can grow excellent clover and timothy here, while alfalfa is just beginning to be brought to our notice, largely through the experiments conducted by our Dairy Superintendent, C. W. McDougall, who is trying to impress on us the great advantages derived from its use.

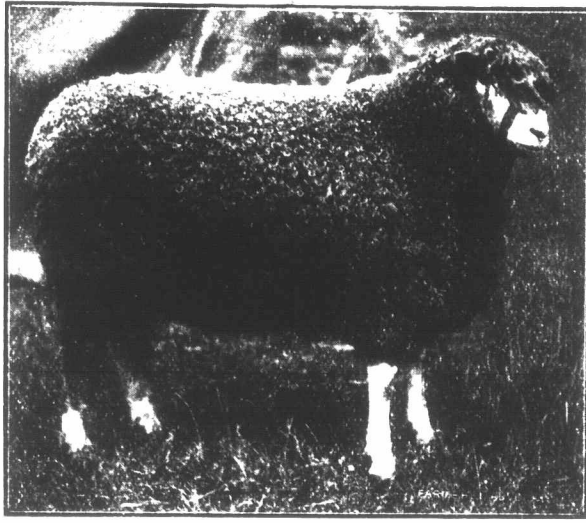
If "The Farmer's Advocate" could give us some suggestions along the lines above mentioned, I am sure it would be greatly appreciated by some of the readers in New Brunswick.

Queen's Co., N. B. MORRIS A. SCOVILLE.

The growing of timothy seed is not a very profitable industry in most parts of the country. From three to four bushels of seed per acre is reckoned a good crop, though double that amount is sometimes secured, while as low as two bushels per acre are occasionally harvested. But many farmers grow what seed they need for their own use, so as to be sure that it shall be free from weed seeds. The process is very simple. The field or portion of a timothy field intended for seed is simply left uncut at hay time, and harvested with a binder when ripe. Sheaves are shocked at once, and left standing until dry, when they can be hauled and stored, or threshed at once. An ordinary threshing machine is used, but the wind must be closely shut off, so as not to blow valuable seed away. Only a clean timothy field, or one from which the weeds have been spudded or pulled, should be kept for seed purposes. If seed is intended for sale, even alsike clover may be considered an impurity, though not a bad one by any means. The threshed hay is not a good value for feed, though its worth is not great.

In connection with the growing of seed clover for seed, the one outstanding fact is that of the time of the first cutting, but from the seed, the seed

secured. It is claimed the main reason for the deficiency of seed in the first crop is the lack of pollenization in the blossoms by the bumblebees, which are not numerous at that season. Whatever the reason, there is little or no seed in the first cutting of red clover. Many Ontario farmers engage quite extensively in the production of red-clover seed, and many more reckon on raising their own seed, and some to spare. The most common method is simply to take off a hay crop at the first cutting, and allow the aftergrowth to grow unpastured and uncut until the clover heads have all turned brown, except some of the smaller and later ones. Those who make more of a specialty of red-clover seed, cut the first growth somewhat earlier than the usual hay season, so that the second may be so much the stronger and better for seed. Another plan pursued, which usually in-



A Typical Lincoln Ram.

sure better yields still, is to pasture the clover field until about the middle of June, run the mower over it then to clip off any bunches and make all even, the strong aftergrowth being the seed crop. This pasturing or early cutting of the first crop brings the seed crop on between the seasons of the first and second broods of clover midge, which causes serious loss in clover-seed producing districts. The maggots hatching from the eggs laid in the forming flower-heads of the clover penetrate the seed pods and destroy the seed. Pasturing till the middle of June, or mowing the first crop before the twentieth, is the most effective means of circumventing the pest.

It is not deemed good practice to cut ripe clover with the mower, and rake it up when dry, as many of the heads would be broken off and lost in the raking process. A light platform attached to the mower cutter-bar, from which the clover can be pitched off in bunches by a man walking behind, is commonly used. These forkfuls are usually left untouched until dry enough to be hauled in



Lincoln Yearling Wethers.

Champion Long-wool pen at Southfield Show

Clover seed is hard to thresh and this work is often deferred until frosty weather, when seed separates more readily from the hull. Special machines—clover hullers—are used for threshing in most seed-growing districts. Ordinary threshing machines, however, can be fitted up so as to thresh clover fairly well.

From two to four bushels per acre of red clover seed is a fair crop, though as high as eight bushels per acre can be reached.

In sowing clover on a field from which it is intended to take a crop of seed, it is very important that seed sown should be clean. Bark, horn, various kinds of plants, and dander seed should be, as far as possible, removed, as they are noxious weeds to the clover and can scarcely be separated.

Fertilizer Questions for Professors.

Editor "The Farmer's Advocate":

The rush of spring work must be my excuse for not replying sooner to Mr. Emslie's letter, re my fertilizer experiments, appearing in your issue of March 31st. I wish to thank him for his suggestions, and am planning to conduct an experiment this season on the lines he proposes. The point Mr. Emslie makes, that the supplying of the most deficient element of the food supply would enable the plant to utilize more of the other elements, had escaped my notice, and I am glad to have had attention called to it, as it will have an important bearing on future experiments. In this connection there is one point that I do not quite understand, and should like to have explained. We are told plants require the various elements of food in certain proportions, and have no power to substitute one for another. It therefore follows that growth, or production, is limited by that element that is most deficient in the soil. Assuming that phosphoric acid is most deficient in my soil, as seems to be the case, how is it that the application of nitrate alone, or potash alone, without any addition of phosphoric acid, each gave an increase in the crop? I have not been able to think of any satisfactory explanation of this fact.

I do not know the constituents of the two special potato fertilizers. There has been much timely information on the use of fertilizers in your columns of late, but I have looked in vain for any experiences in their use on pasture or hay land. Anyone who is observant must admit that our hay crops, whether clover or grass, are not half what is possible, and yet there is more land devoted to this than any other single crop. It is not tillage that is needed, nor drainage; the plants are there, they look healthy, but they don't grow as they ought; it is food they require, but what? I should like some of our chemists to give an explanation of the following facts, and perhaps it may help us a little. Two years ago, I manured two acres of rather low ground late in spring; a few loads of the manure was out of the open, the balance from the cattle stable. Half the land was sown with rape, the rest white turnips. It was drilled up, and got the same cultivation throughout. Where the pig manure went there was a good crop of turnips, the others were not worth pulling, were all top, and not too much of that. The rape was not specially benefited by the pig manure; it was rank and good all over. The good turnips were hauled off; the balance and the rape were grazed off by the cattle. Last year the whole piece was sown with mixed grain. The crop was very heavy, and there was no apparent difference where the rape was, or where the different manures were applied. If anything, perhaps the grain was a little the best where the turnips were the poorest. The land was seeded down, and there is a good catch. Three weeks ago there was little difference between one part of the plot and another, but to day the clover and timothy on that part that had rape

two years ago, shows a most luxuriant growth, while the rest is only ordinary. There is not another piece on the farm like it, and it is safe prophesying that that acre will yield double the other. Now, why is this? The same rain and sun has moistened and warmed the whole piece, the land is the same, its treatment has been the same; it was all trampled by the cat. The same, two-thirds of the turnips were eaten on it. Why should the rape land give so much better results than the turnip land? It must be a question of food.

Does the turnip take something from the soil that is not required by grain, but is by clover and grass? Or can it be that the small, fibrous roots of the rape plant have an influence eighteen months after the plant has died? One thing is certain, it is not tillage, nor drainage, that causes the difference. Then, if it is food, what food? If I could supply anything that would make all my grass equal to that piece, it would be worth \$10 per acre per year easily, and probably more. We know barnyard manure will do it, but the supply is limited, and we can't begin to do it with that. Might I expect acid phosphate to do as much for rape as it does for turnips, or does rape require something else? I do not find mangels respond to phosphate fertilizers very noticeably; hen manure does the trick, though I find potash or nitrogen,

or both, that are specially required, and why has a very light sprinkling of the droppings from the hen roost so much more effect than any other form of manure? I notice considerable difference on potatoes, too, though not nearly so marked as on mangels; on turnips, little or no special benefit is noticed. Now, Mr. Editor, I have several other problems of like nature that I should like to propound for solution, but my letter is already too long, so I will leave them for some future time.

ALFRED HUTCHINSON.

Wellington Co., Ont.

Sweet Corn for Summer Feed.

Editor "The Farmer's Advocate":

Why not plant an acre or so of sweet corn for early fall feeding. There is no other crop that will produce as much succulent food when it is most needed. Don't plant too thickly; eight or ten pounds should plant an acre, and there will be plenty of room for cobs to form. If planted too thickly, you have nothing but a coarse grass; but, with plenty of room, and good cultivation, you have a profitable crop.

It is best to plant beside the lane or pasture fence, where it can be cut each day and fed fresh to the cows, by simply cutting and tossing over the fence to them.

The best results are obtained when the cob is fit for table use, though feeding may begin a little earlier. Sows with young pigs also eat it at this season with great relish, consuming both cob and stalk, and I know of no other food that will put young pigs, after weaning, into condition more quickly than a liberal diet of sweet corn cobs, snapped from the stalks and thrown to them. The grain is so full of rich milk that the weaning has no ill-effect.

Any leafy, strong-growing variety should be planted, such as Evergreen, Old Colony, Hitchcock, etc. An acre planted to sweet corn will help out the pastures wonderfully at a season when they sometimes are pretty short.

Essex Co., Ont.

J. O. DUKE.

Rape as a Feed and Weed Destroyer.

Editor "The Farmer's Advocate":

Many people who do not summer-fallow, on account of not having a farm suitable for fall wheat, and not wanting to spare a year's use of the land, simply leave this valuable part of farming out of question. We are situated in just such a way, but we use a rape crop, instead. We work our land the same in the fall as though we were going to crop in the spring. After seeding, and our mangels and corn are in, we single-plow the field we have for fallow; then we work it on top with cultivator, disk harrow and harrows, never letting any grass or weed peep through, until about the tenth or twelfth of July, then we put 9 or 12 loads of manure, or whatever we have to spare, to the acre, with the manure spreader.

We then work that thoroughly in with cultivator, after which we sow five pounds of rape to the acre, broadcast. We sow with the drill in the grass-seed box, and cultivate at same time; this puts it on nice and even; give it a stroke with the harrows, and roll it. You then have a nice field, weeds and grass all dead. The rape comes up quickly, soon covers the ground, and smothers out everything that attempts to spring up. About the 20th of September we have a crop of rape from

12 to 20 inches high. I have heard some people say they have trouble with animals bloating, and also dying. That, I think, all depends upon how you start them. We put our cattle and lambs on for about a half an hour, then turn them out; next day, half an hour in middle of forenoon, when dew is off, and also same in afternoon; next day increase time, and so on, until they are thoroughly used to it.

Now, to get proper results from rape, you should have a pasture field near-by, where they can run at will. This, we find, keeps the animals from scouring too much. At first you don't see much change, but they soon put on flesh, and very rapidly, too. I have had cows gain as much as 200 pounds each. We allow them to feed on this until we think we have just time to plow it. When plowed, it is as rich and mellow as an ash-heap, and from it we get the very best results the following year.

G. M. FORSYTH.

Ontario Co., Ont.

What Constitutes an Ideal Ear?

Editor "The Farmer's Advocate":

In your issue of April 21st, L. C. Palmer speaks of "Seed Corn and Seed-corn Trade," also of the judging of corn at the Corn Show, in Essex. When he said, "Buy your seed corn on the ear," he gave good sound advice. It is the only proper way to buy seed corn, because it keeps better that way, and you can see what you are getting. Then, if you know what you want, you can tell whether it suits you or not. I have bought many bushels of seed corn, but I never have bought any shelled. While it costs about 20 cents an acre more for seed corn on the ear, it amounts to nothing, compared with your gain over the average, shelled-before-shipped seed corn.

If Mr. Palmer had said nothing more, he would have been O. K., but he goes on to say that the judging of corn at the corn convention held in Essex during February last, by the Ontario Corn-growers' Association, was wrong, and why? Because the judges could not give a prize to large, freak ears that would not produce corn that would mature here—the very thing he is complaining of.

While in Omaha, at the National Corn Convention, I did not see any of those 12-inch ears he speaks of, and if they don't show and advocate that type of corn in the corn belt, it is sure proof that we don't want it here. Why is it we have so many poor corn years here? Because our land is not drained, and because too many men like Mr. Palmer are trying to grow too big a variety. Those little nubbins he mentions, of 7 inches in length, and weighing 8 to 10 ounces, are not to be despised. A 100-per-cent stand of three stalks to the hill, with three 10-ounce nubbins, will give 180 bushels of ear corn, or over 90 bushels of shelled corn, per acre, and he only asks for 125 to 150 bushels of ear corn.

Now, Mr. Palmer is in about the same boat with the rest of us. We all have a lot to learn about corn. Only last week a farmer came to me to see if I had any seed which would produce a large crop of corn on poor land. I did not have any, either shelled or on the cob.

What the Corn Convention tried to teach was how to grow the best crop of corn possible, and mature it for the purpose it was grown for. None of us have reached the senior class yet, so let us keep on studying how to do it.

Essex Co., Ont.

T. S. BIGGAR.

Municipal Legislators and Weed Inspection.

In a recent issue, Prof. Gridale, of Ottawa, outlined a plan of rotation and cultivation to subdue sow thistles, which plan, I have no doubt, would be effective for the purpose designed, and would insure land clean of that and most other weeds, but his concluding sentence, "See that your neighbors do not reseed you," seems to me next to an impossibility, here in Ontario at least. If the Professor, or anyone else, will explain how this part of his instructions can be carried out in this Province, it will be a favor to many of your readers. Of course, I am aware of the fact that in Manitoba and other Western Provinces they have inspectors appointed for the purpose of securing united effort against the weeds, and, that in Quebec, complaint against any person allowing weeds to mature seed, without any attempt to check, can be lodged with any justice of the peace, who must see that steps are taken to cut or pull out the noxious plants. But here, in darkest Ontario (this part, at any rate), every owner or occupant of land is free to grow as many and cut or pull as few weeds as he chooses, and the man who tries to keep a clean farm has no redress if his neighbors do nothing or next to nothing in this direction. Our Provincial law makes it a finable offence to allow noxious weeds to go to seed, and provides for appointment of inspectors by the municipal councils for the purpose of carrying out the law in this respect; but, so far as this locality (South Perth) is concerned, no inspector or inspectors have ever been appointed, although petitioned for as the Provincial statute instructs. Thus, we have one set of legislators ignoring and undoing the work of another and superior body of law-makers, making null and void that which was designed to protect the man who is willing to do what is right in the matter, against the carelessness and criminal negligence of his neighbors. The Noxious Weeds Act of this Province doubtless cost the country a large sum to place it on the statute books, and, so far as I can learn, has been worth little or nothing in actual practice. It has been law since 1896, has been framed by the former Liberal Government, amended and endorsed by the present Conservative one, and still is of no service to the country, though admitted to be sound in principle by those who ought to know. The trouble seems to be that township councils fear the loss of a few votes at elections more than the invasion of the lands of ratepayers by any or all kinds of weeds, and actually place a premium on the practice of the man who disobeys the Provincial law, inasmuch as he pays no more taxes and contributes nothing in fines, any more than the man who does his best to carry out both letter and spirit of the law of the land.

Perth Co., Ont.

"OBSERVER."

Size of Ears and Yields of Corn.

Editor "The Farmer's Advocate":

Kindly allow me space to make a few suggestions and express a few thoughts regarding a letter by L. C. Palmer, Essex County, published in "The Farmer's Advocate" of April 21st. Mr. Palmer goes into details in describing the Essex Corn Fair's failings; he criticises certain things, yet makes no suggestions as to what the management of the Corn-growers' Association should do to remedy them. His principal cause of lamentation was the length of the ear that the corn judges gave prizes for, all ears over ten inches long in the dent varieties being classed as undesirable.

With all due respect to Mr. Palmer's opinion on this matter, I think that one of the wisest things the corn judges did was to give prizes for a medium ear of corn. Farmers in Kent and Essex are in most cases growing larger corn than they can successfully ripen. What I consider to be the best corn for us to grow is a corn that we can not only ripen one year, but every year. Were the corn-growers to offer prizes for the largest and longest ears, irrespective of what they believe to be the best size of an ear for our climate, they would be doing the corn industry in Ontario an injury. Mr. Palmer's ideal ear is a mammoth affair, weighing two pounds, larger than prizes are given for any place in the United States. Planting corn 3 feet 6 inches, one acre of ground contains 3,556 hills. Three stalks to the hill would make 10,668 stalks. A 9½-inch ear will weigh somewhere about one pound, but, on the basis of Mr. Palmer's figures, an 8-ounce ear to the stalk would give 76 bushels to the acre of shelled corn. One 12-ounce ear to the hill makes 38 bushels per acre. Three of Mr. Palmer's ideal ears to the hill would make 304 bushels shelled corn per acre—a larger yield than the most enthusiastic corn evangelist in the world ever dreamed of.

The largest yield on record was grown by John F. Batts, in the Wake County one-acre corn contest. Two hundred and twenty-six bushels shelled corn was the official measurement. It would possibly interest some to know how he secured these



Early Spring in the Sheep Corral

results. On March 12th he put on 25 two-horse loads cow manure; on March 15th land was broken to a depth of 18 inches; April 9th, 20 two-horse loads manure spread on; cross-broken to a depth of 21 inches the following day; April 15th, 800 pounds acid phosphate and 2,000 pounds cottonseed meal, harrowed in, following which the land was laid off in rows forty-six inches wide, and 600 pounds of guano put in the rows. Corn was planted April 17th, a planter being used, dropping three grains to hill, 8 inches apart. On May 27th, a mixture of 200 pounds cottonseed meal, 200 pounds acid phosphate, 400 pounds kainit, and 200 pounds nitrate soda, was broadcasted over and harrowed in. The corn was gathered in the ordinary way. Cost of producing, \$139.02.

Of course, farmers living in Ontario would be very unwise to attempt anything of this description, where we have such a limited season.
Kent Co., Ont. R. H. ABRAHAM.

Perennial Sow Thistle Spreading.

The judges in the standing-field-crop competitions of Ontario Agricultural Societies, in their report, sound the alarm in regard to perennial sow thistle. Almost unknown a few years ago, it is now found in patches in many sections of the Province, both east and west, and is spreading rapidly. Many other noxious weeds were, of course, noted, but this is the most obnoxious, say they, of any with which the farmer has to deal at the present time.

Smothering is recommended as the best plan of destroying it. Pasture the land closely with cattle and sheep until about the middle or end of June, and plow down, cultivate well, and sow with rape, buckwheat or millet. Rape in drills is especially good, as cultivation can be given for a time, and growth is very rapid. The smothering process should be repeated the next year, if necessary.

To this we might add mention of the practice of J. H. Grisdale, Agriculturist, Central Experimental Farm, Ottawa, who, on page 590, issue of April 7th, reported very satisfactory results from a rotation of corn in hills, well cultivated, land disked in fall, sown to grain the following spring, disk-harrowed third spring, and sown to oats seeded down with ten pounds red clover, 2 pounds alsike, and 12 pounds timothy, per acre. Third year, two crops clover; fourth year, pasture till August 10th, then land plowed, rolled and disked several times, harrowed at intervals of a week or ten days, and ribbed up October 20th. Mr. Grisdale concludes that all that is necessary to rid a farm of weeds is a good rotation, well carried out.

Husking vs. Sweet Corn—Peas for Canning Factory.

I have read with interest the many and valuable articles in your paper on growing corn in different parts of Ontario. In Norfolk County we grow some good crops of husking corn, and also a large quantity of sweet corn for canning purposes. Now, Mr. Editor, I want to know which will pay the farmer better, the sweet corn, at \$6 to \$7 per ton, averaging three tons per acre, cost of growing and harvesting one acre being \$14, all the ears and parts of the husks are taken to the cannery, and nothing is kept on the farm except the stalks. Or, do you think that the husking corn would pay better? We grow from 75 to 100 bushels per acre, and value it at the present market prices, and feed it all on the farm, this also costing \$11 per acre to grow and harvest. How much fertility is taken from the acre with the sweet corn, and what is the value of same? How much are we returning to the soil by feeding the stalks and corn to live stock?

We also grow large quantities of peas for canning purposes. The peas are cut green, and the entire crop is taken to the cannery and threshed, and nothing returned to the farm. How much fertility is taken from the soil per ton of green peas; that is, before they are threshed, and counting the value of the vines and the peas?

Norfolk Co., Ont. J. J. GILBERTSON.

It must not be supposed that a statement of the manurial constituents removed from the soil, and their value in dollars and cents, furnishes all the information necessary to conclude which of two crops it will pay the farmer the better to grow. As far as the resultant condition of the soil—the relative draft on the fertility of the soil—is concerned, these data are, of course, all-important and essential, but there are other matters to be considered in such a question, and numerous instances could be cited in which the more exhaustive crop—provided plant food is returned to the soil in some cheaper form—is much more profitable. I take it, therefore, in such questions as are propounded by our correspondent, the chemist's duty is fulfilled if he presents a statement

showing the amounts of nitrogen, phosphoric acid and potash removed per acre by the crops under consideration, leaving the final balance to be struck by the farmer, who alone knows those conditions—market prices of crop, and of crop converted into beef, pork and milk; of distance from markets, cost of labor, etc., which must have due consideration.

Unfortunately, the questions are not stated in very precise terms, so that the writer is obliged to make certain assumptions before making the necessary calculations, as, for instance, that the three tons of sweet corn per acre refers simply to the weight of ears with husks. Further, the weight of stalks in both cases must be assumed. And, lastly, a difficulty has arisen in finding analytical data specially applicable to the problem in hand; and this conclusion was reached after a careful search through all the available American literature on the subject of corn.

Taking first the case of the husking corn, I shall assume that the weight of stalks would be twice that of the corn on cob, and we then have, per acre:

Corn on cob, 100 bushels.....	7,000 lbs.
Stalks	14,000 lbs.
	21,000 lbs.

Now, employing average data respecting the percentage amounts of plant food in these several parts of the corn plant, and assuming that 80 per cent. of the total plant food may be returned to the soil when the crop is fed on the farm, we obtain the following figures, nitrogen being valued at 17 cents, phosphoric acid at 5½ cents, and potash at 5 cents per pound: The value of the plant food in total crop, \$19.83; the value of the plant food recovered in the manure on feeding crop on the farm, \$15.87.

Estimating the feeding value of the crop at \$2.00 per ton (placing upon the corn a figure that might represent its value for feeding animals, compared with other feeds on the market), we have:

10½ tons, at \$2.00	\$21.00
Manurial value of same.....	15.87
Feeding and manurial value.....	\$36.87

Employing the same method of calculation for the sweet corn, we have, per acre:

Corn on cob, with husks	6,600 lbs.
Stalks	12,000 lbs.
	18,000 lbs.

The value of the plant food in stalks, \$10.69; the value of the plant food recovered in manure when stalks are fed on farm, \$8.48.

The total return per acre from the sweet corn would then stand:

From sale of 3 tons of ears, at \$6.	\$18.00
Feeding value of stalks	12.00
Manurial value of stalks.....	8.48
	\$38.48

This is not the only way in which such a problem may be worked, but, as far as I can gather, the information your correspondent desires is such as may be obtained by a consideration of the foregoing data.

With respect to the inquiry relating to peas, we would point out that no weight of crop per acre is given, and, further, that no data of the plant food in the pod (with seed) are available. Under these circumstances, we have been obliged to use certain results we obtained in arriving at the manurial value of the crop in 1906. The crop, when cut for analysis, had made two months' growth, and was just past the height of its flowering. Yield per acre, green, 12 tons 1,013 pounds; nitrogen in crop, 119 pounds; phosphoric acid in crop, 32 pounds; potash in crop, 149 pounds. As the root system was covered with tubercles, no doubt a large proportion of this nitrogen had been obtained from the atmosphere.

The total value of the plant food in such a crop, at prices already specified, would be \$29.24, and the value of plant food in manure recovered by feeding it would be \$23.39, approximately.

FRANK T. SHUTT,
Chemist, Dom. Exp. Farms.

A considerable trade in clover seed has been done between farmers this season. Prices dropped in February, and dealers, having mostly bought their supplies before the drop, were unable to sell so cheaply as farmers were willing to do. The Seed Branch, Ottawa, wishes farmers to know that they are liable to prosecution the same as are seed merchants, if they violate the provisions of the Seed Control Act in the sale of grass and clover seeds. Recent amendments to the Seed Control Act, which became law March 17th, limit the number of weed seeds in No. 1 timothy, red clover and alfalfa seed to five to the ounce (formerly, 12 were allowed), and in No. 1 alsike seed to ten to the ounce. Vitality standards have also been fixed.

THE DAIRY.

Does it Pay to Rear Dairy Young Stock?

Editor "The Farmer's Advocate":

A continual introduction of young cattle into the dairy herd is necessary in order to replace those which, from old age, disease, and various reasons, have become unprofitable milkers.

In the editorial the other week I noticed that the question, "Does it pay a dairyman to rear his own cows?" was raised. Personally, I think that if due care and reasonable economy is exercised, it pays over and over again. I say reasonable economy, because, in my experience of dairy farming, both in England and Canada, I have too often seen stunting practiced in mistake for economy. The dairyman who breeds his own cows, by carefully selecting the sires, assuring himself that they are free from any symptoms of disease, and of a good milking strain, gradually builds up a herd of useful cattle, and does not run the risk of importing disease by buying in cattle which, though he knows it not, are already contaminated. The only case, in my opinion, in which the question is doubtful, is that of the dairyman who contracts to supply so much new milk daily. Even then, if he bases the contract on his winter supply, and uses the summer surplus, or some of it, for calf-rearing, he will be amply repaid.

Much has been written concerning the management of dairy young stock, and yet, even if only to jog the memory, I should like to make a few comments. One cannot start too early to take care of the youngsters. The pregnant cow should not be milked for at least a month previous to calving. She should be fed not fattening, but sustaining, food—oats and bran, for instance, with some good hay. As soon after it is dropped as I can, I give the calf some of its mother's milk. —an old enamel teapot comes in handy here—and never allow the colostrum or first milk to be withheld from the calf. New milk should be fed for at least a fortnight, and then gradually mixed with separated milk, until, at the end of a month, the new is dropped altogether. When starting to use separated milk, I generally add a little very fine oatmeal and flaxseed meal. When a month old, the calf should be encouraged to eat a little dry food. A mixture of crushed oats, bran and a very little flaxseed meal should be given, together with some sweet meadow hay. Calves have a strange craving for earth, and if a nice loamy sod is placed handy, they will often be seen at it. Salt or rock salt is a necessary article of food, and should always be within reach. It is well to remember that beef is not the object in view. Every opportunity should be given for sufficient exercise. Light and fresh air are valuable to insure health and vigor. Keep the youngster nicely growing and in fair flesh, but do not let it get fat and lazy. It is the details which do not cost much that make all the difference in successful rearing.
A HIRED MAN.

New Methods of Cream Treatment

Although the only rational method for permanently improving the general quality of cream supplied to our creameries is by the inauguration and carrying out of a vigorous campaign for greater cleanliness and increased cooling facilities on the farm, the modern buttermaker, being confronted with the conditions as they actually exist, and seldom being in a position to get results from the farm end, has in his extremity had to fall back upon himself, and depend upon the various methods at his disposal, within the four walls of his own creamery, to extricate his product from the slough into which it has fallen. Hence, "cream doctoring" is being reduced to a fine art, and it is only natural that new processes and methods of cream treatment should be brought to light from time to time. It is the intention of the writer to discuss several of the more modern methods in this and the following article.

One of the commonest and most beneficial practices is that of pasteurization. In the case of good-quality cream, its advantages are considerable, but in the case of cream of poor quality its advantageous effects are very much more marked. From the use of discontinuous machines, in which the cream was held at 140 degrees F. for twenty minutes, the change was made to continuous-flow machines run at 180 to 190 degrees F. The cream was usually pasteurized late in the afternoon, held over night, and churned the following morning. The practice of holding pasteurized cream for half a day before churning has been discontinued in many creameries, as it was found that much better results were secured by cooling immediately to churning temperature, or below, and churning within two to three hours after pasteurization. The slightly-increased loss of fat in the buttermilk is more than offset by the improved quality of the butter. Some creameries which receive their cream late in the evening have gone so far as to employ a night shift of men to do the churning.

rather than hold this pasteurized cream over till the following day to churn.

Pasteurization, however, is not without its occasional drawbacks, and it is in trying to overcome these that several new methods have been brought to light. The curdling of the cream into larger or smaller lumps during the process of pasteurization has caused considerable trouble and financial loss in many creameries, and in some cases a discontinuance of the process altogether. The factors favoring this trouble appear to be medium acidity of cream (0.3 per cent. to 0.4 per cent.), low fat content (below 25 per cent.), and heating only to medium temperature (140 degrees to 160 degrees F.). Of these, the acidity appears to be the most important, and is, moreover, the factor which is the most easily changed. By the addition of an alkali, the acidity can be so reduced that trouble from curdling is no longer experienced. Viscogen (succrate of lime) has been used for this purpose, sufficient being added to the cream to bring the acidity down to .2 per cent. The cream is then pasteurized, as usual, cooled to ripening temperature, a large starter added, and acid allowed to develop to about .4 per cent., when the cream is cooled for churning.

It is claimed that good results are being secured by this method, but care must be taken not to overripen the cream after neutralization.

Another common trouble arising from pasteurization, and one which has come into prominence during the past few years, is the development of a strong metallic flavor which shows itself in the butter as soon as it is churned. No one has yet been able to determine the exact cause of this trouble, but there is no doubt that it is closely connected with the acidity of the cream. To overcome this, the method of "double pasteurization" has been recommended, and proved successful. The cream is first heated to 125 degrees, and held at this temperature for twenty minutes, and then heated to 180 degrees, cooled immediately, and churned within two or three hours. Professor Mortenson, of the Ames Dairy School, claims to have secured a much greater bacterial efficiency with this method, compared with the usual one, but cannot as yet explain just why it eliminates the metallic flavor. T. H. L.

[Note.—With regard to this matter of double pasteurization, practical experts in Canada do not consider that it would be practicable under creamery conditions in this country. Nor has the metallic flavor been noticed to any extent worth mentioning, where practiced, in this country.—Editor.]

Glassware Must Be Tested.

"That every test bottle, pipette and measuring glass used in connection with the testing of milk or cream shall be tested for accuracy of measurement, and accuracy of the per-cent. scale marked thereon, by such persons, and at such places as are designated by the Governor-in-Council, and if found to be accurate shall be ineffaceably marked in a manner provided by regulations," is the point of a bill called the Milk Test Act, or an act to provide for the testing of glassware used in connection with milk tests, which has passed both Houses of Parliament at Ottawa. Such marking of glassware not so tested is prohibited; likewise, the sale or use of glassware not so tested and marked is interdicted. Exception is made, however, in the case of burettes or measures used in connection with the Babcock milk test for the measuring of sulphuric acid. Regulations for the operation and enforcement of the Act, fees for the verification of apparatus, and provision for imposition of penalties, are left in the hands of the Governor-in-Council.

This legislation has been found necessary, owing to the largely-increased number of inaccurately graduated pieces of Babcock glassware that have been found during the past few years. The directors of the Dairymen's Association of Western Ontario passed a resolution asking for this legislation some time ago. Since the matter was brought to the attention of the Dairy Commissioner's Branch, at Ottawa, they have been collecting inaccurate test bottles and other pieces, and have found a very large number inaccurate, varying from .2 to .6 per cent. in the case of milk bottles, and they found at least one cream bottle that was 10 per cent. out in the marking. Dairy Commissioner Ruddick has come to the conclusion that American manufacturers have been dumping their inaccurate pieces on this market, owing to the fact that nearly all the dairy States in the Union have passed similar legislation.

There is a promising outlook for dairy production this season, is the report sent out by the Dairy and Cold-storage Branch, Ottawa. Cows have wintered well, and fodder is plentiful. Pastures are in good condition, the fine snow covering having protected from winter killing, and promise to be much earlier than last year. An increased output of dairy products is expected.

POULTRY.

Caponizing.

Editor "The Farmer's Advocate":

I was thinking a few remarks on this subject might be of interest to some of our farmers who are interested in the raising of poultry, and who are subscribers to your valuable paper. I have performed this operation on different breeds of fowl for a number of years, with very favorable results. The larger breeds, of course, are the ones from which the greatest profit may be derived. The majority of birds I have operated on were Barred Plymouth Rocks. However, some of the cross-bred birds do very well. For instance, a cross between the Indian Game and Brahma, or any of the Plymouth Rocks and Brahma, produces excellent birds for capons, as they grow to be very large, and are plump and richly colored when dressed for market. I have not operated on the Wyandotte or Orpington birds to any particular extent, but I can see no reason why they would not produce excellent capons.

There are advantages in caponizing, viz.: The price which they bring on the market, as compared with ordinary birds; they are worth from five to eight cents a pound more when dressed, and probably more, when people learn the difference between the flavor of their meat and others, they being more tender, sweeter, and more juicy.

Speaking from prices where I have been, capons were selling for fifteen cents a pound, while ordinary birds were eight to ten cents a pound, according to quality. I am now speaking of towns, and if these birds were marketed in cities, still higher prices could be realized. To my knowledge, a great many people do not appreciate the difference there is in them, but have only to help eat one or two to be convinced of their superiority. Generally, a few cents a pound is nothing to them after that.

The increase in weight is considerable. It is not difficult to have a capon weigh from eight to twelve pounds. The heaviest I have yet known was sixteen pounds, being a cross with a Brahma. They grow for a few months longer than ordinary birds, and for this reason may be kept later in the season, when prices are better and fowl scarce.

They should be operated on at two to three months of age, just before they commence to crow. The operation is simple, and only takes from one to two minutes after the bird is caught and held in position. They must be fasted for at least twenty-four hours, then fed warm, soft feed for three days following. My fatalities have been less than one per cent. If the operation has been successful, the birds will commence to grow rapidly, sit around, become pale in the head, and have no desire to roam with other birds. Their combs do not grow, and a great many of them never crow. However, if the smallest portion of the testicle is left intact, it will grow to quite a size, and the bird crows, and is little different from a cockerel. They should be kept where they can be fed by themselves, for they will not push in and feed with the other fowl, the other birds all bossing them. Their inclination is to eat, sit around, and grow, but will not search for food.

I give the experience of one of my clients, which was as follows: I caponized 125 birds for him. The chicks were hatched in May and June, and were disposed of during the end of December and January. They weighed from eight to ten pounds, and were sold for 12½ to 15 cents per pound. The birds not operated on weighed 6 to 6½ pounds, and sold for 9 cents per pound, so each ordinary bird brought on an average of 56½ cents. Allowing an average of 8½ pounds for each capon, at 12½ cents, they would bring \$1.06½ each. This would be 50 cents over and above each ordinary bird, or \$62.50 on the lot, and I don't believe they ate any more feed. W. J. R. FOWLER (V. S.), York Co., Ont.

[Note.—Commenting upon this article, Prof. W. R. Graham, of the Ontario Agricultural College, while agreeing that in the main the article is true, stated, nevertheless, that, in taking the matter of capons up with the commission houses, two or three years ago, he was unable to persuade them to offer him any more per pound for capons than for crate-fed cockerels. "Undoubtedly," he says, "there can be worked up a trade for them, and, no doubt, they are valuable, particularly as roasters, for the months of January, February and March. To be marketed in the autumn, I doubt whether they have any premium value, except for house-to-house trade, above ordinary cockerels; but, where one wants to supply individuals with dressed poultry the year round, they are practically a necessity. This much must be taken into consideration, however, that they require to be housed for a longer period than ordinary cockerels, consequently, I think, must be more expensive to produce; that is to say, I do not believe it would pay to market them in November, when one is naturally getting rid of the surplus males. If one has house-room, and knows where he can

sell to advantage, then the proposition is all right.

"I doubt very much whether they would grow up to, say, Christmas time, to be any larger than the ordinary cockerels. We raised a number of them here last year. They can be housed more closely than the cockerels can, or even laying pullets, and they are very quiet; in fact, in many respects, are much the same as your correspondent writes. For home use, they are certainly worth a trial, and the same would apply to the first-class retail trade."

Another Good Egg Record.

Editor "The Farmer's Advocate":

As I see poultry reports from time to time in "The Farmer's Advocate," I thought this might be of interest to some of the readers. I have a flock of 33 White Wyandotte hens, 22 of which are pullets, and the rest a year old. In January they laid 428 eggs, an average of 13.58 eggs per day; in February, 496 eggs, an average of 17.70 eggs per day; in March, 634 eggs, an average of 20.45 eggs per day; in April, 641 eggs, an average of 21.36 per day. I have now three nice flocks of chickens hatched in April; also, two more hens sitting. I do not think this is a bad record, compared with others I have seen in "The Farmer's Advocate." Frontenac Co., Ont. LAWRENCE L. PRICE.

Marking Chickens.

There are two methods of marking chickens in common use. One is by the use of aluminum leg-bands, and the other is by punching a small hole in the web of the foot, between the toes. The latter method has several advantages. The hole, though punched the day a chicken is hatched, remains as long as the bird lives. No inconvenience is caused. At least ten distinct markings can be made without using more than two punch-holes.

APIARY.

Elementary Instructions in Bee-keeping.

Morley Pettit, Provincial Apiarist, O. A. C., Guelph.

BEES MUST NOT SWARM NATURALLY.

A swarm of bees in May is worth a load of hay,

A swarm of bees in June is worth a silver spoon,

A swarm of bees in July isn't worth a fly,

A buckwheat swarm in August—

seems to have been overlooked by the author of this famous little stanza. The fact is, natural swarming at any time is more or less of a disaster. It is more; it is a reflection on the progress of this branch of the science of agriculture. The farmer regulates the increase of all other farm stock; why should he be lax here? Lack of swarm control spells heavy loss to the beekeeper, great and small. It is the greatest obstacle to keeping bees as a side line with farming or any other business. It necessitates close watching ten hours daily seven days in the week by a responsible person for nearly two months in the busiest part of the summer. This alone is too big a price to pay, when it can be avoided, but if the price is not paid by watching, it is by loss of swarms, and hay and spoons go sailing away to parts unknown. When the little lambs die in spring it is considered a loss; but when a swarm absconds, the mother sheep has died, and left a suckling which will not grow into much value for a year, and may perish before reaching maturity.

Experience, and careful weekly examination of each hive will prevent this loss, and make it possible for any systematic person who has a spare hour of daylight daily, or a half day weekly, to keep 30 or 40 colonies at a profit of \$100 or more per annum.

To have any animals really do well, we must care for them for their own sake. Show me a sleek, good-natured team, and I will show you a man who puts a lot of time on his horses simply for the love of it. Success in beekeeping comes by having the same love for the busy little denizens of the hive. One who has it will spend his or her spare time studying their actions at the entrance, or wherever they may be seen. The weekly visit to the interior of the hive will be a pleasure. Conditions and treatment, and results, will be watched with much interest, and noted for future reference in similar conditions.

Bees swarm when they have contracted what we call the "swarming impulse." It is a state of mind, or nerves, or something which we do not well understand, which can be prevented, but is not easily cured before running its course. Certain conditions nearly always induce the swarming impulse, and, once under its influence, the bees of the hive make certain preparations before swarming. Before one can learn to keep bees from swarming, one must learn what these conditions are that cause it, and what preparations

the bees make when under its influence. Then, when we find causes of swarming present in a hive, but no preparations yet made, we know that swarming may be forestalled by removing the causes. But if the causes have remained long enough to induce the swarming impulse, and preparations have begun, drastic measures are necessary to remove not only the causes, but the "impulse," and it is almost like trying to break up a "sitting hen."

In our next article we shall take up the cause of swarming, and how to prevent it.

HOW TO BEGIN WITH BEES.

According to the famous instructions for making "pemmican," "first catch your buffalo."

Get bees near home; have them inspected by a competent, disinterested person. If they are not Italian, buy some queens from a reliable breeder. The former owner of the bees will be able to give the beginner a deal of gratuitous advice on their management.

A better way is to spend a season or two in the apiaries of some successful specialist, or a term at the Agricultural College, at the same time getting all the information possible from one's tutor, and from reading standard books and journals.

Catalogues of supply dealers are good reading matter. A small supply of goods can be bought as a first investment, and after that it is best to make the bees pay their way. The following is a good beginner's outfit: Smoker, veil, bee-brush, text-book, subscription to bee journal, one colony of bees in 10-frame hive; two extra hives, with queen-excluder and extracting supers for all three; medium brood foundation, and wire embedder.

This is an outfit for the production of extracted honey. I recommend this in preference to a comb-honey outfit, because it is a much easier matter for a beginner to get honey in full-sized combs than in sections. If the honey is for home use only, or to sell to a few neighbors, it can be cut and used out of the large frames. After some experience has been gained in producing honey in extracting combs, the more difficult matter of producing it in pound sections can be taken up.

The second or third year, if the love for bee-keeping holds, a further investment will be necessary for an extractor and uncapping knife, and uncapping can, wax-press, etc.

GARDEN & ORCHARD.

Some Good Old Apples.—I.

"The old friends are the best friends," they say, and the old adage seems to me to apply to some good old apples which have now, for some time, been discarded, owing to their susceptibility to scab. But now that the use of the lime-sulphur spray has been proved so effective in destroying this evil, and in transforming our unproductive orchards into gold mines, we may wisely remove from the black-list some otherwise most excellent varieties. Among these, let me mention a few, somewhat in the order of ripening:

1. The Early Harvest.—There is no apple of its season to compare with this, either for dessert or cooking. It is earlier than the Astrachan, and far superior in quality to either it or the Transparent. How well I remember the pride and delight of my boyhood days over two rows of "harvest apple" trees in my grandfather's old orchard, when I could take my schoolboy friends in for a feast, how we hunted for the yellow beauties here and there showing upon the topmost boughs, and got them either by climbing or by peeling them with sticks or stones. And the crops those old trees gave about fifty years ago, and the great wagon loads which I took to Hamilton market, some seventeen miles away, and for which I found a ready sale. Nor will I ever forget the delicious sauce and pies made from these harvest apples in early August, and, indeed, from the green ones in the month of July.

That was before the days of the scab; but soon afterwards the pest appeared, we thought a temporary evil, but it remained with us, multiplied, and increased from year to year, until, in utter discouragement, we destroyed all those dear old trees, except one, and warned everyone against planting them, as being unprofitable.

Well, perhaps they would not be very profitable now, for they are not so attractive as the Astrachan, and are only medium in size, still, with spraying, the trees would each yield four or five barrels of clean fruit, and would find a ready sale just before that variety is ready. I would, therefore, recommend intending planters to include a few Early Harvest trees in the new orchards, providing they intend to treat them with up-to-date methods.

2. Then comes the good old Fall Pippin. One immense old tree still stands on the old homestead. It was there in 1798, when my grandfather, Dennis Woolverton, came to Canada from New Jersey, and bought 400 acres of land at Grimshy. It was only one of perhaps a dozen trees of this variety, fine old monarchs of the orchard, from which, away back in the "sixties," I harvested immense crops of beautiful, clean

apples, and, in one season, sold a carload of them to Haskett & Brown for \$2.50 a barrel. What apple of its season compares with it, coming in a little later than Gravenstein, and before the Ribston or the King?

But that terrible scourge, the Scab, invaded that orchard soon after. Instead of passing away, it spread and increased, until these fine old trees became unprofitable, and in despair, we rooted out all but one, which I retained for private uses.

Now, thanks to our experiment stations, we can, by faithful spraying, again grow this old variety, and I would recommend the planting of a certain proportion of Fall Pippins in any commercial orchard, where the owner wishes to cover the season with successive shipments.

The tree, however, is only a moderate cropper, and very large yields must not be expected. Yet, its great excellence for cooking will always commend it to those who want to buy the best; while only its large size stands in the way of its being commended as a leading dessert variety. In a cool cellar, the Fall Pippin may be kept till nearly Christmas.

LINUS WOOLVERTON.

Pernicious Brown-tail Moth.

The brown-tail moth, the caterpillars of which feed not only upon orchard trees, but upon the forest hardwood trees as well, threatens to become a pest in Canada. In the Eastern States, where it was introduced about 1890, it has spread rapidly. It obtained a foothold in Nova Scotia in 1907, but has been kept in check and considerably reduced by the vigor of the measures taken to exterminate it. Stray specimens of the male moth have been found in New Brunswick since 1902. The pest is being brought into Canada on nursery stock imported from France, but as notice of this fact was communicated to the Ottawa authorities from New York State, where it had been observed on such stock early in 1909, very careful inspection has been made of all European nursery stock imported. Though over 300 winter webs have been found in this way, it is believed, the Dominion Entomologist, Dr. Hewitt, assures us that none have escaped destruction. Infestation from this source has probably been prevented.

Many apple-buyers have lost money during the season now closing. The crop proved larger than was expected, and prices were high in the fall. Much inferior fruit was marketed, and, prices being high in early winter, consumption was materially reduced, so the inevitable happened—prices declined. And they continued to decline, especially for the lower grades, until lately, when there has come a revival of demand. Notwithstanding the low wholesale prices, retailers in the cities kept their prices well up, and the unusual spectacle of oranges, which were unusually plentiful, selling for less than apples, was not uncommon.

THE FARM BULLETIN.

A City on Wheels.

In Detroit, Mich., one million dollars a week is paid in wages by the automobile and accessory industries. This weekly payroll keeps 58,000 people employed in the automobile factories. It is estimated that more than 200,000 persons in the city are dependent upon the automobile industry for a livelihood. The total annual capacity of the plants is 85,000 cars, with a total capitalization of \$30,000,000. All told there are twenty-three factories devoted exclusively to the production of gasoline-propelled vehicles. The total value of Detroit-made cars this year will be \$200,000,000. More than \$10,000,000 is invested in automobile plants in the city. Sixty per cent. of the national output of automobiles is built in Detroit, and the city is enjoying the greatest prosperity in its existence. How long the boom will last, is another question. He is a wise man who will know when to get out.

The Safety Valve.

Editor "The Farmer's Advocate":
When the steam engine was invented, they had to provide a means for the surplus steam to escape. This was accomplished by the safety valve. It has been ascertained that many human beings generate surplus energy, too, and in this case the safety valve appears to be the mouth. Or, in other words, when a person "flies off the handle," he has to vent his wrath on something. Now, Mrs. Hopkins appears to have selected the farmer as a means of easing her feelings. To quote one of her own sentences, "But the way will out," means that she must let it out, or something more dreadful will happen within. She complains of how she is disgusted with the shabby way farmers dress. Now, Mrs. Hopkins, should you some day expect to pass through "The pearly gates and golden," you must be very careful in handling St. Peter your passport, because while he

was on this earth he was a fisherman. How disgusting it would be for you should some of that "fishy odor" adhere to your robes.
Bruce Co., Ont. H. McN.

The Tuberculosis Commission's Progress.

By M. H. Reynolds, Secretary.

It seems desirable that the public should be given opportunity to know what the International Tuberculosis Commission is doing, inasmuch as the Commission represents indirectly the Canadian and United States Governments, and involves livestock sanitary control work of all of the individual States. The last session, held at Detroit, was devoted largely to reports. The committee on Dissemination of Bovine Tuberculosis presented its study under such headings as "Introduction of Disease Into the Herd"; "Dissemination by Feeding to Calves"; "Dissemination by Contact at Shows"; "Dissemination by Placing Healthy Animals in Contaminated Stables"; "Dissemination by Transportation of Healthy Animals in Infected Cars"; "Dissemination by Pasture Exposure." The discussion on this report gave considerable attention to the problem of tracing back from the killing-floor to the infected farm, with a view to detecting the diseased herds, and concentrating control work as much as possible on diseased herds.

The Committee on Disposition of Tubercular Cattle reported concerning the necessity of accepting tuberculin for diagnosis as a fundamental; the necessity of voluntary co-operation, and the superiority of voluntary co-operation to measures of compulsion. This committee considered the feasibility of the Bang and Ostertag methods of dealing with tubercular herds under American conditions. It also made recommendations concerning the relation of indemnity to final disposition of carcass; the principle of carcass salvage; the obligatory disposal of all clinical cases; and a study of the conditions which should determine the disposition of reacting cattle.

A very considerable amount of discussion on this report was given to the question of remuneration for owners, and particularly as to whether this should be regarded as a temporary or as a permanent provision in tuberculosis control work. A number of members held that it must necessarily be considered as a useful preliminary and temporary measure.

Careful consideration was given to the possibility of making either the Ostertag or Bang method of dealing with tuberculosis in the herd, or a combination of the two, feasible in America and Canada for grade herds. This is along the line of finding some method more economical than slaughter for as many herds as possible. The next meeting of this International Commission will be held in Ottawa.

Prospects in Essex.

Heavy rains for past two weeks preceding date of writing (May 2nd) have checked farming operations. Should rains continue, serious damage may result to spring grain, as it is just at a stage when flooding will work destruction. Prospects hitherto were the brightest possible. Grain owing to the mellow condition of the soil, germinated rapidly, and is now a month in advance of last year. A few weeks ago, a statement was made in "The Farmer's Advocate" regarding early seeding in several localities, and a request sent out asking for information from any section where seeding had occurred at an earlier date. Was expecting to see a note from Essex, but so far it has not appeared. The peninsula takes the premium for early seeding this year. In the northern and central portion of Tilbury West some fields were sown on March 15th, while seeding was quite general in same locality by the 20th. Much of the grain is covering the ground nicely, despite the cold, raw weather of April.

Fruit prospects are, so far as can be ascertained, good. Pears and plums promise an abundant harvest; the orchards are white with blossom. Peaches are not making as good a showing as last year, but the bloom is sufficient to warrant the expectation of a fairly large crop. Some of our enterprising vegetable gardeners have early potatoes showing above ground, while extensive preparations are being made for setting out early tomatoes and planting cucumbers. This season promises to be a record-breaker, so far as building operations and general improvement is concerned.

Later, May 7th.—Heavy rains have ceased. Farmers are resuming their work. Oats and barley in low-lying, poorly-drained districts, have suffered considerably. Frost sufficient to form ice occurred on 5th and 6th inst. While impossible to determine the damage sustained to fruit crop at present stage of development, yet probabilities are that the peach crop will be much lighter than anticipated. Owing to cold rains and subsequent frost, peach blossoms have not matured properly, and, therefore, do not present as fine an appearance as they ought. A. E.

Agricultural Service at Ottawa Gradually Extending.

The Department of Agriculture at Ottawa is administered on a more or less conservative basis. That is to say, lines of advancement are cautiously and safely pursued. Each year a small number of new acts and amendments to old ones are put through by Parliament, and each session the vote for carrying on the work of the Department is a little larger than that of the year before. The following table shows the amount of the vote sanctioned by Parliament for the past and present fiscal years, and the increase for the present year.

	1909-10	1910-11	Compared with Est. of 1909-10 Increase
Experimental Farms	\$ 98,000	\$110,000	\$12,000
Experimental Farms, towards establishment and maintenance of additional branch stations.....	30,000	75,000	45,000
Printing and distributing reports and bulletins of farms	8,000	16,000	2,000
Exhibitions	75,000	100,000	25,000
For renewing and improving Canadian exhibit at Imperial Institute, London, and assisting in the maintenance thereof	8,600	8,000	8,000
Grant to Dominion Exhibitions		50,000	50,000
Grant to P. E. Island Exhibition		10,000	10,000
Fumigation stations	5,000	5,000	
For the development of the dairying and fruit industries, and the improvement and transportation of, the sale and trade in, food and other agricultural products	90,600	100,000	10,000
Towards the encouragement of the establishment of cold-storage warehouses for the better preservation and handling of perishable food products.....	75,000	75,000	
For experiments in cold storage for fruit	7,000	7,000	
To encourage production and use of superior seeds, and for the enforcement of Seed Control Act.....	49,000	50,000	1,000
For the development of the Live-stock Industry.....	52,000	52,000	
Health of Animals	250,000	250,000	
For the administration and enforcement of the Meat and Canned Foods Act	110,000	120,000	10,000
To encourage the production and sale of Canadian tobacco	5,000	5,000	
Contribution towards maintenance of, and expenses of representative at In'l Institute of Agriculture.....	10,600	10,000	

MORE BRANCH EXPERIMENTAL FARMS.

The \$12,000 increase for experimental farms is needed for the carrying on of four additional farms, established a short time ago, at Lacombe and Lethbridge, Alberta; Rossland, B. C.; and Charlottetown, P. E. Island.

An item of considerable importance is that for the establishment and maintenance of additional branch experimental farms. Hon. Mr. Fisher has for some time been considering this question, and has decided that the varying character of the soil and conditions in the different Provinces demand a considerable extension to the present farm system. In the House, Mr. Fisher stated that he had in mind some half dozen new farms, distributed from east to west. Already, one has been located at Scott, Sask., on the Grand Trunk Pacific, north of Moosomin. He mentioned that one or two farms may be established in the dry belt of British Columbia, in perhaps the Counties of Kootenay and Okanagan. Then, again, Vancouver Island is likely to have a farm; also Northern Manitoba, Northern Quebec, and Western New Brunswick. The locations for these, it is understood, have not been decided upon. The farm at Scott is now being broken, and ordinary farm buildings will be put up this summer, including a dwelling-house, granary, and horse stable. It is not the intention to do much, if any, work with live stock at these farms, but to carry out experiments and demonstrations in the cultivation of the soil and the growing of grain crops.

EXHIBITION GRANTS.

Displays at the great national and world's expositions have been found to give excellent returns in advertising Canada for industrial and immigration purposes. This year two great fairs are receiving attention, at Brussels, Belgium, and the Festival of Empire, at London. Then, it will be observed that the Canadian exhibit at the Imperial Institute, in London, is to be renewed and improved. It is hoped to make this a standing, fresh and telling advertisement of the resources of the Dominion.

Last year, no Dominion Exhibition was held. This year, St. John, N. B., is to receive the usual vote of \$50,000 towards the prize list and the providing of necessary increased accommodation. Prince Edward Island, in not expecting to hold a Dominion Exhibition, is taking advantage of the big show at St. John by asking a grant of \$10,000, so as to attract exhibits across the Straits. This is a repetition of what was done the year of the Dominion Exhibition at Halifax.

The Government has five stations for fumigating nursery stock entering Canada. These are situated at Nelson and Vancouver, B. C.; Windsor and Niagara Falls, Ont., and St. John, N. B. It is to carry on these that \$5,000 are required.

TO DEVELOP DAIRY AND FRUIT INDUSTRIES.

An additional \$10,000, it will be observed, is provided for the development of the dairy and

fruit industries, and the transportation of food products. This is for a general expansion of the work of the Branch of the Dairy and Cold-storage Commissioner. Additional fruit inspectors will be employed at various points in British Columbia, Ontario, and the Maritime Provinces. These men, when not inspecting fruit, are engaged in lecturing and giving demonstrations in spraying, pruning, and other orchard work. A cheese inspector will be placed at Halifax for a portion of the season, to inspect Island and other Maritime cheese for export. Heretofore, a cheese inspector at Montreal only was employed.

Plans are being made to carry out experiments in creamery work in various parts of the country. The ice-cheese-car service will be put on two weeks earlier than usual, commencing June 20th. It will be continued for eleven weeks. The ice-butter-car and the ice-fruit-car services will be the same as last year.

The amount available for bonusing cold storages for food products is the same as last year. Last year, only some \$25,000 were taken up for this work.

The items for experiments in cold storage for fruit stand the same. This work includes the storing of apples in approved cold storage and in ordinary storage cellars, and the shipping of the fruit to distant markets. Shipments are made in the winter, early spring and late spring. Most shipments the past season went to Great Britain, but some to Calgary. The cold storages used are located at London, Ont.; Montreal, Que.; and St. John, N. B.

SEED CONTROL ACT AMENDED.

The Seed Commissioner commands an extra thousand dollars for his general work, which is taken advantage of by a very large number of farmers and others to determine the vitality of seeds of various kinds. One-quarter of this vote is applied to seed fairs and field competitions. The inspection of seeds exposed for sale in connection with the administration of the Seed Control Act, is having a marked influence upon the cleanliness and vitality of seeds sold throughout Canada.

An amendment to the Seed Control Act was passed during the session. Its main feature is the provision of a standard of germination of seeds that may be lawfully sold. The amendment requires that the seeds of cereals, grasses, clovers, forage plants, field, root and garden vegetables offered for sale must be capable of germinating in the proportion of at least two-thirds of the percentage standard recognized for good seed of the kind. Receptacles holding seed possessing a lower standard of germination must be so marked.

The amendment also provides a classification for alfalfa seed in relation to purity, the same as was previously given for timothy, red clover, alsike seed. Certain additional noxious weed seeds are also listed amongst those previously named.

LIVE-STOCK AND VETERINARY WORK.

The vote for the Live-stock Branch remains the

same as last year. This includes a grant of some \$7,000 towards the work of the National Live-stock Records. As heretofore, grants will be made towards winter fairs, co-operative Provincial auction sales of pure-bred stock, and expert judges and lecturers will be supplied for fairs and series of agricultural meetings throughout the Dominion, more especially where the live-stock industry shows a tendency to lag behind. It is probable, also, as last year, special attention will be given to the improvement of the sheep industry. The work of the official testing of pure-bred cows for the Record of Performance is extending and expanding, and is now going on in every Province, except Manitoba and Saskatchewan.

It requires a quarter of a million dollars to finance the branch of the Veterinary Director-General for the fighting of contagious diseases, and nearly half that much to administer the Meat and Canned Foods Act. In the former Branch, in addition to the salaries and expenses of a large staff of inspectors, large sums of money are needed to compensate for animals destroyed, such as horses for glanders, and swine for cholera. The experience of the last few years leads to the conclusion that these diseases are being greatly reduced in Canada. The policy of testing horses for glanders at the United States boundary, and the tracing and destruction of affected animals in Canada, instituted by Dr. Rutherford, is year by year reducing the amount of money paid for compensation. As pointed out by the Minister to the House, only some \$40,000 was paid last year for compensation, as against nearly \$200,000 the first year compensation was paid.

An amendment was made to the Meat and Canned Foods Act. It is of a verbal character, and does not affect the principle of the bill. Game is added to the list of animals to which the bill applies. The Act applies to some goods which have never been in what is technically called an establishment. The amendment, therefore, does away with the words defining an establishment. The Act permits the slaughter and sale of animals by farmers without inspection, and this called for wording which would define clearly what constitutes a farmer. The following definition was then incorporated in the amendment: "A farmer is a person whose recognized occupation is that of farming, and who slaughters only such animals as are fed by him on his own premises."

WORK OF TOBACCO DIVISION.

The vote for the production and sale of tobacco stands the same as last year. The following paragraphs, prepared by F. Charlan, Chief of the Division, explains clearly the character of the work to be undertaken this year:

"Central Experimental Farm, Ottawa.—The tobacco plot of the Experimental Farm shall be chiefly devoted, in 1910, to the culture of choice seeds of the Comstock Spanish variety. In addition, we expect to try a few imported varieties, with a view to produce so-called pipe tobaccos. Canadian seed-leaves generally used for this purpose lack somewhat in body, and burn too rapidly. Burleys have sufficient body, but generally have poor burning qualities. We expect to obtain a product which, while burning properly, will possess the required texture.

"Experiment Station, St. Jacques l'Acadigan, P. Q.—This is being devoted, in 1910, to different experiments in fertilizing seed-beds, and to the growing of the following varieties: Cuban, Big Ohio, Comstock Spanish, and Comstock Sumatra. Various insecticides shall be tried for destroying different insects and caterpillars which attack the tobacco crop, and we shall continue, on the plot planted with Comstock, the experiment with fertilizers undertaken in 1909. Big Ohio is being cultivated with a view to replacing the Large Connecticut, somewhat late in ripening, which are still being cultivated by a few growers of the Province of Quebec. As to the Comstock Sumatra, this tobacco shall be grown for the first time on a sufficient area to permit us to establish its reputation. It has given remarkable results in 1909, but the acreage planted was far too limited to enable us to make an experiment that could really be termed industrial.

"The Experiment Station at St. Césaire, P. Q., is being devoted to the culture of Brewer Hybrid and Comstock Sumatra. Our object is to ascertain which of these tobaccos can furnish the best "binder," or even the best "wrapper." The shape of the Brewer leaf is somewhat more rounded than that of the Comstock Sumatra, but it ripens slowly, and has, on the other hand, more prominent veins than those of the Comstock Sumatra.

"The Experiment Station at Harrow, Ontario, is being devoted to an experiment in fertilizing seed-beds, and also to a comparative study of hot and cold beds, and seed-beds under glass and canvas covers. The plantation will chiefly include a plot of Burley, partly devoted to the continuance of experiments with fertilizers undertaken in 1909, and some Virginia types (Warne and Yellow Oronoko), already tried last year, and cured by the flue-curing process. We expect to obtain still more convincing results than in 1909, and to be soon in a position to place within the reach of

the Ontario growers thorough directions for treating this tobacco, introduced but a short time since in Canada."

GLASSWARE MUST BE TESTED.

An Act, to be administered by the Dairy and Cold-storage Commissioner, to provide for the testing of glassware used in connection with milk tests, was passed. It provides for the sale and use for testing milk or cream of only such test bottles, pipettes, measuring glasses, as have been tested for accuracy and marked in a per cent. scale. It prohibits marking these glasses that have not been officially tested. The Act will probably not come into force before January 1st, 1911, in order to give dealers time to get rid of present stock, and secure fresh, properly tested and marked supplies.

A bill which has attracted much attention throughout the country, and which is said to be likely to injure certain branches of the horse-breeding industry, after a long fight, passed the two Houses of Parliament. The bill, as first prepared, was considered by the majority too drastic, and was defeated. A compromise measure was brought on, and passed, with little discussion. Its main features were given in "The Farmer's Advocate" of April 21st, page 681.

The "Destructive Insect and Pest Act" is a measure introduced by Hon. Sydney Fisher, and sanctioned by Parliament, authorizing the Governor-in-Council to make prohibitory regulations in relation to importations or sale, inspection, treatment, destruction of plants, vegetable matter or packages, granting compensation not to exceed two-thirds the value; confiscation, appointment of officers, and providing penalties for contraventions. Previously, the operations of the Act which this one supplants were confined largely to the preventing of the introduction of San Jose scale. It is now more general, and covers the Brown-tail and Gypsy moths.

Endorses Mrs. Hopkins.

Editor "The Farmer's Advocate":

Although not a subscriber to "The Farmer's Advocate," I usually get a reading of it, and I have read with interest the letter of Mrs. Hopkins, of Carleton Co., and some of the criticisms, and would just like to say I quite agree with her in what she says, and I certainly think that letting the men know the plain truth will be of great benefit to them, and be the means of bringing not a few of them to be a little more particular about their personal appearance and actions at all times.

A. R., in his criticism, says, "Who would think less of a man for not wearing broadcloth when going to the city with a load of farm produce?" He certainly would look very much out of place in such a dress. Indeed, we do sometimes see them in a shiny, swallow-tailed black coat at market. Now, a nice, well-fitting serge or tweed would be much more suitable for nearly all occasions.

Then, what a pity they do not generally tidy up when their dirty work is done in the evening; also, when coming to the table at meal-time; they may wash hands and face, but come without a coat.

A. R. also says that few farmers are so lazy that they will not lift a heavy basket into the wagon or buggy for the womenfolk. I do not think it is a question of laziness at all, but simply because they have not been in the habit of performing these little courtesies, and do not know the value of them. Too many of them consider that any little attentions shown a lady is "putting on airs." How often do we see men from the country—not from laziness, either—drive up to a door, and sit, while the lady climbs out, or in, as the case may be? Neither is it laziness prevents them lifting their hats when they meet a lady.

What a pity that all this is so, for I believe that farmers, despite a sometimes rough exterior, are better at heart than they appear to be, and, although men in towns and cities have more outward polish—a most desirable thing, and not to be undervalued—yet men in the country, on a whole, are more moral. Hoping that the discussion of the question may not be closed before I have had my little say.

ANOTHER CARLETON CO. COUNTRY GIRL.

Screws Tightened in New York State.

Bills prohibiting both written and oral bookmaking, and making the track and jockey-club officials guilty as common gamblers for allowing this kind of betting at race-tracks, passed both lower and upper branches of the New York State Legislature recently. The supporters of the bills claimed that they wished to put an end to professional bookmaking, and not to horse-racing or individual betting. The bills will go into effect September 1st.

The racing interests have fought the passage of these measures bitterly. They themselves are to blame, however, for what has come upon them. They did not seek to carry out the spirit, as well

as the letter, of the law enacted two years ago, prohibiting, in broad terms, bookmaking and pool-selling, and the screws had to be tightened.

Successful Horse Show at Ottawa.

The first annual Spring Horse Show, held under the auspices of the Ottawa Hunt Club, was formally opened on Wednesday, May 4th, and from the time of opening, till Friday night, when, owing to the death of his late Majesty the King, it was closed, every moment was full of interest. Commodious quarters, excellently fitted up, and tastefully decorated; a large attendance; capable judges; a long entry list of over six hundred, and a programme carefully prepared and carried out, all combined to place Ottawa's first annual in the front rank of spring shows.

The entries numbered over 600, and were from the stables of such well-known exhibitors as Beith, Beck, Yeager, Webster, Wilks, Edwards, Pepper, Sifton, Gudewill, Warren, and many others.

The breeding classes, unfortunately, were light, only fourteen or fifteen stallions in all being shown, and even fewer brood mares. In the draft class, the good breeding horse Cecil, owned by Reid & Co., of Ottawa, was first, with Barber's Royal Headley, another Clydesdale, second, and Wilson's Percheron, Rocket, third. In Hackneys, Yeager's King's Chocolate took first place, Edwards' Paramount second, and Beith's Cedar Gombang third. The three Standard-breds entered were Pilot Chimes and Rex, belonging to Robert Stewart, of Ottawa, and Henry Arken, James Allen's horse. Five good Thoroughbreds were shown; Mesmerist, Rosemount, Kirkfield, Masterman, and Valjean, was the placing of the judges. Draft horses were not a heavy entry. The Dominion Transport Co., of Montreal; Geo. Matthews Co., of Hull; and T. Birkett, Ottawa, showed the best animals, and were thus placed in order of merit. In carriage horses, Beith, Beck, Yeager and Gudewill divided honors, and left little for the others. In the saddle classes, mention might be made of Yeager's champion, Day Dream, and Rodney, Beck's reserve champion, but there were many others equally as good. Dr. Webster's Skylark, Miss Cunningham's Rajah, and Warren's Vanity, were also good ones. Hunters and saddlers were out in the largest numbers, as high as thirty-eight entries being in one class. Several classes, as well as all the ponies, were not judged, as they were down for Saturday's programme. Hon. Adam and Mrs. Beck took the blue in most of the classes that were judged. Blackbird, Sir Edward and Grey Cloud were first-prize horses in three classes, while Sifton's Hume Blake and Harold Shortt's entries were successful in three others. In the roadster class, Miss Wilks won first and second on Oakum Belle and Moka Bird, and first for team.

Ottawa's first show will certainly do much to stimulate the horse industry in Ottawa and its vicinity. Already, local men are planning for better horses, and new men are looking about for good ones to start with. The management are to be congratulated on the success attending their first efforts.

E. O. L.-S. and P. S. Building Probably Enlarged.

At the annual meeting of the Board of Directors of the Eastern Ontario Live-stock and Poultry Show, held in Ottawa on Friday, May 6th, 1910, the report which the Executive Committee presented to the Board indicated that the results of the past year's work had been satisfactory. The attendance at the show was more than double that at any previous show, while the number and quality of exhibits was all that could be expected. There were 2,722 different exhibits in the show, on which \$6,428.50 was paid in prize-money.

The financial statement, presented by the treasurer, showed receipts for the year of \$15,028.14, while the expenditures amounted to \$13,296.28, which included the payment of an overdraft of \$613.71, as shown by the report of the year previous. There is a balance of \$1,731.86 on hand, which, however, includes \$1,500 to provide for the expenses of preparing for the next show, until October 31st, 1910, which is the end of the fiscal year of the Ontario Government.

The next show will be held during the week corresponding to the one on which the last show was held, and the dates will be January 16th to 20th, 1911.

It is decided to have the age of hogs computed to December 1st, instead of January 1st, as formerly.

The officers of the show for the ensuing year are as follows: President, Peter White, Pembroke; Vice-President, John Bright, Myrtle; Secretary-Treasurer, D. T. Elderkin, Ottawa; General Director, A. P. Westervelt, Toronto; Executive Committee—The President, Vice-President, Secretary, J. H. Grisdale, Geo. Robertson, B. Rothwell, and A. P. Westervelt; Directors—Peter White, Pembroke; John Bright, Myrtle; A. P. Westervelt, Toronto; Wm. Smith, Columbus; J. H. Grisdale, Ottawa; J. C. Smith, Ottawa; B. Rothwell, Ottawa; Robert Gra-

ham, Renfrew; N. F. Wilson, Cumberland; Wm. Jones, Zenda; P. O. Collins, Bowesville; R. J. Garbutt, Belleville; John Gardhouse, Highfield; W. F. Stephen, Huntingdon, Que.; Andrew White-law, Guelph; W. A. Wallace, Kars; R. Richardson, South March; Geo. Robertson, Ottawa; John A. Belford, Ottawa; Geo. Lake, Ottawa; Geo. Higman, Sr., Ottawa.

It is expected that, before the next show, an addition will be made to the show building at a cost of \$8,000. The ground floor of the addition will be utilized for the exhibit of dairy cattle, while the second floor will be used as a lecture hall. The present lecture hall and dairy stable will be taken for the beef-cattle and poultry exhibits.

Will Toronto Provide New Fruit Market?

A conference between fruit-growers interested in the Toronto market, Toronto wholesale fruit-dealers, and a special committee of the Toronto city council, was held on Wednesday afternoon, May 4th, in the City Hall, to discuss the erection of a new fruit market for the Queen City. The producers, represented by prominent members of the Niagara Peninsula Fruit-growers' Association, were unanimous in the view that a more commodious and convenient market should be provided. The special committee of the city council heard the views of the merchants and producers, and decided to meet again later to consider the matter.

Alderman Foster has been agitating for such a market for the last three years, and a committee of the Ontario Fruit-growers' Association has appeared before the council on three separate occasions to try to arrange for the erection of a suitable building. It is not believed, however, that there is much chance of the matter carrying at the present time, owing to the opposition of the Grand Trunk Railway and of three of the largest wholesale houses in the city, namely, White & Co., McWilliams & Everest, and Clemes Bros. These three firms have now the pick of the wholesale houses on Church Street, and would likely be seriously affected by a move on the part of the trade to any other point.

The present market, which, if we are not misinformed, belongs solely to the Grand Trunk, does not cost the parties using it any large sum of money for rental of space. A fair charge would have to be made by the city in case a new building were erected. In addition, the Grand Trunk, which now practically controls the car-load shipments of Ontario fruits into the Toronto market, would likely do everything possible to prevent the passing out of their hands of the bulk of this trade, which would follow if a building was arranged for in such a place as to permit of equal privileges by all the railroads.

O. A. C. Examination Results.

Results of examinations in the first, second and third years at the Ontario Agricultural College are before us. The lists have grown too lengthy to publish, but the winners of scholarships and special prizes may be given. Scholarships awarded on first-year work, theory and practice, were won as follows: In Agriculture, L. J. Hextall, Calgary, Alta.; Biological Science, P. S. D. Harding, Lacombe, Alta.; English and Mathematics, J. Miller, Mt. Elgin, Ont.; Physical Science, G. W. Stanley, Granton, Ont. In the second year, the ten-dollar prize in books, and the Governor-General's silver medal, both given for best work in the first and second years combined, were won by P. O. Van Sickle, Trinity, Ont., who also secured the Geo. Chapman scholarship in English. The Barton-Hamer medal, for best work in judging at the Chicago International, was won by O. C. White. Special prizes in English were won by J. Spry, Easton's Corners, Ont., in the third year, and F. P. A. Powell, of Rudell, Sask., in the second year. Ninety-three students negotiated the first-year examinations, though a number will have to write supplementals in one or two subjects. G. W. Stanley headed the class. The sophomore pass-list numbers 71, headed by the name of J. M. McIlquham, Lanark, Ont. Third year, 53 names.

There were more hours of sunshine at Ottawa during March than at Lacombe, in sunny Alberta. Out of a possible 370, there were 214.8 sunny hours at Ottawa, and 202.9 at Lacombe. Agassiz, B. C., comes lowest of any of the Experimental Farm Stations, with but 108.6 hours of sunshine recorded. The fact that Ottawa exceeded Lacombe in the amount of sunshine in March but emphasizes the exceptional character of the month in the East.

Two American firms have established depots on the Island of Guernsey for the purchase of cattle as they are offered for sale. Small farms have been established, on which the animals are held until the proper time arrives to ship them to the United States.

A Strong Progressive Bank

Is the safest place in which to keep your spare money, and as such THE BANK OF TORONTO offers to you, and to all who have money to deposit, or other banking business to transact, their ample facilities for all banking transactions. The entire financial strength of this Bank secures the safety of all money deposited with them.

Incorporated 1855
Assets - \$46,000,000

Bank of Toronto

MARKETS.

Toronto.

LIVE STOCK.

At West Toronto, on Monday, May 9th, receipts numbered 141 carloads, comprising 2,928 cattle, 99 hogs, 105 sheep, 111 calves. Quality good. Trade was dull; few cattle sold, buyers and sellers being wide apart, exporters being held for Tuesday. Prime picked butchers', \$6.75 to \$7; loads of good, \$6.50; medium, \$6 to \$6.25; common, \$5.50 to \$5.75; cows, \$4.75 to \$5.60; milkers, \$4 to \$5; calves, \$3 to \$6.25 per cwt. Sheep—Ewes, \$5 to \$6; rams, \$4 to \$5; yearlings, \$7 to \$8 per cwt.; spring lambs, \$3 to \$6.50 each. Hogs—Firm; \$9.25 for selects, fed and watered, and \$9, f. o. b. cars at country points.

REVIEW OF LAST WEEK'S MARKET
The total receipts of live stock at the City and Union Stock-yards were:

	City.	Union.	Total.
Cars	194	167	361
Cattle	2,704	3,295	5,999
Hogs	4,329	1,283	5,612
Sheep	631	163	794
Calves	765	265	1,030
Horses	2	90	92

The total receipts of live stock at these yards for the corresponding week of 1909 were:

	City.	Union.	Total.
Cars	189	108	297
Cattle	2,686	1,922	4,608
Hogs	3,760	987	4,747
Sheep	187	44	231
Calves	603	154	757
Horses	—	123	123

The above figures show a total increase at the two yards of 64 carloads, 1,391 cattle, 865 hogs, 563 sheep, 273 calves, but a decrease of 31 horses. The figures also show an increase at the City yards of 5 carloads, 18 cattle, 569 hogs, 444 sheep, 162 calves, and 2 horses, and an increase at the Union yards of 59 carloads, 1,373 cattle, 296 hogs, 119 sheep, 111 calves, but a decrease of 33 horses.

Receipts of live stock, especially cattle, were liberal, large enough to cause a decline in prices, from 25c. to 50c. per cwt., in the different classes. Notwithstanding the decline in cattle values, prices are still high, higher than should be expected, considering that thus far this year more cattle have been received on the Toronto markets than in any previous year. On Monday, trade was slow, drovers refusing to accept the prices offered, especially for exporters. On Tuesday, however, they accepted the buyers' terms, which were still high enough to enable the drovers to return home with a handsome profit as a rule.

Exporters. Prices ranged from \$6.15 to \$7.25; bulls, \$5.25 to \$6; heifers, \$6.50 to \$7. Only one carload sold up to \$7.25 per cwt.

Charles Campbell bought for the S. &

S. Co. 160 exporters, 1,225 lbs. each, at \$6.90.

Geo. Campbell bought for Morris & Co. 683 exporters, at \$6.15 to \$6.95.

E. L. Woodward bought for Swifts 241 steers, 1,194 lbs. each, at \$6.75; 26 heifers, 1,078 lbs. each, at \$6.70, average weights and prices.

Butchers.—Prime picked lots sold at \$7 to \$7.25; loads of good, \$6.75 to \$7; medium, \$5.60 to \$5.90; common, at \$5 to \$5.50; cows, \$4 to \$5.75.

Feeders and Stockers.—A few lots weighing from 500 to 1,100 lbs., sold at \$4.50 to \$6.50 per cwt.

Milkers and Springers.—Receipts were fairly large, with prices ranging from \$40 to \$80 each.

Veal Calves.—Receipts were large, with prices easier than at any time this season, ranging from \$3 to \$6 per cwt.

Sheep and Lambs.—Receipts were a little larger, with prices easier. Ewes, \$5.50 to \$6.50 per cwt.; rams, \$4 to \$5 per cwt.; yearlings, \$7 to \$9 per cwt.; spring lambs, \$3 to \$6.50 each.

Hogs.—Receipts were light, with prices firm, at \$9 for selects, fed and watered, and \$8.75, f. o. b. cars at country points.

Horses.—At the Union Horse Exchange last week there was a fair demand, but receipts were short. Six pairs of heavy drafters, 1,700 lbs. and upwards, were sold, to go to British Columbia for show purposes, at \$550 per pair, and four horses at \$265 each. The general run of prices were as follows: Drafters, \$200 to \$230; general-purpose, \$160 to \$190; expressers, \$150 to \$210; drivers, \$100 to \$250, and one pacer at \$250, serviceably sound, \$35 to \$100.

BREADSTUFFS.

Wheat.—No. 2 white winter or mixed, \$1.03 to \$1.04. Manitoba—No. 1 northern, \$1.04; No. 2 northern, \$1.04; track, at lake ports. Rye—No. 2, 67c. to 68c. Peas—No. 2, 75c. to 76c. Buckwheat—No. 2, 51c. to 51½c., outside. Barley—No. 2, 52c. to 53c.; No. 3X, 51c.; No. 3, 47c., outside. Oats—No. 2, 35c., at points of shipment. Corn—No. 2 kiln-dried yellow, 66½c. to 67c.; No. 3 yellow, 65½c. to 66c.; Canadian corn, 60c. to 61c., Toronto freights. Flour—Ontario 90 per cent. patents, for export, \$4 to \$4.05, in buyers' bags. Manitoba flour, at Toronto, first patents, \$5.50; second patents, \$5; strong bakers', \$4.80.

HAY AND MILLFEED.

Hay.—Baled, in car lots, easier, at \$15 for No. 1, and \$14, track, Toronto, for No. 2.

Straw.—Baled, in car lots, track, Toronto, \$7.50 to \$8.

Bran.—Ontario bran, in bags, \$20. Shorts, \$1 more.

COUNTRY PRODUCE.

Butter.—Receipts about equal to demand. Prices unchanged, but dealers are looking for a decline in the near future. Creamery pound rolls, 32c. to 33c.; separator dairy, 28c. to 29c.; store lots, 26c. to 27c.

Eggs.—Receipts large, prices steady, at 22c.

Cheese.—Market unchanged. Large, 13c.; twins, 13½c.

Potatoes.—Ontarios are worth 30c. to 35c. per bag, for car lots, on track, Toronto; New Brunswick Delawares are worth 43c. to 45c. per bag.

Honey.—Prices remain unchanged, at 10½c. for extracted, and \$2.50 to \$3 per dozen for combs.

Beans.—Trade remains steady, supplies being about equal to demand. Primes, \$2 to \$2.10; hand-picked, \$2.15 to \$2.20.

Poultry.—Receipts light, prices very firm. Turkeys, per lb., 18c. to 25c.; last year's chickens, 20c. to 23c.; fowl, 15c. to 17c. Spring chickens sold on the farmer's market at 55c. to 60c. per lb.

HIDES AND WOOL.

E. T. Carter & Co., 85 East Front street, have been paying the following prices: No. 1 inspected steers and cows, 12½c.; No. 2 inspected steers and cows, 11½c.; No. 3 inspected steers, cows and bulls, 10½c.; country hides, 9c. to 10c.; calf skins, 13c. to 15c.; horse hides, No. 1, \$3.00; horse hair, per lb., 32c.; tallow, per lb., 5½c. to 6½c.; sheep skins, \$1 to \$1.20 each. Wool and raw-fur prices given on request.

FRUITS AND VEGETABLES.

Egyptian onions, in sacks, \$2.50, apples,

\$1 to \$3 per barrel; carrots, per bag, 55c. to 60c.; parsnips, 60c. to 65c.; beets, 75c.; new cabbage, in crates, \$3.50.

Montreal.

Live Stock.—The strength of the market for live stock in England occasioned an improved demand for ocean freight space from this port, and some 4,000 spaces for cattle have been made for May and early June. The rates are now around 20s. per head for London, Liverpool and Glasgow. As was but to be expected, the market for cattle, locally, showed a slight decline of ¼c. to ½c. a pound last week. The previous price was exceptionally high, and in response to it large numbers were sent along from the country. Also, the high prices had the effect of reducing demand considerably. Choice stock sold at 7½c. to 7¾c., fine at 7c., good at 6½c. to 7c., medium at 5½c. to 6c. and common at 4½c. to 5c. Some export steers sold at 7½c., being extra choice. The market for live hogs was weaker also, supplies being larger, and demand not specially active. Sales of selects were taking place at 9½c., a few bringing close to 10c., off cars, for selects. Calves continued to bring from \$3 to \$5 each for poor, and from \$6 to \$10 for best, while spring lambs sold from \$4 to \$8 each, according to size. Old sheep ranged in price from 5c. to 5½c. per lb.

Horses.—Quite a few light horses—such as express horses, milk-wagon animals, etc.—are being sold, prices ranging around \$200, and even higher. On the whole, however, the market is dull. Prices show no change, being as follows: Heavy draft horses, 1,500 to 1,700 lbs., \$250 to \$325 each; light draft, 1,400 to 1,500 lbs., \$200 to \$250 each; light horses, 1,000 to 1,100 lbs., \$100 to \$175 each; inferior, broken-down animals, \$50 to \$100, and choice saddle and carriage animals, \$350 to \$500.

Dressed Hogs.—Abattoir-dressed, fresh-killed select stock sold at 13c. to 13½c. per lb. Lard, 11½c. to 13½c. for compound, and 16½c. to 18c. for pure.

Potatoes.—Cheap; market about steady. Dealers claim to have purchased Green Mountains at 35c. per 90 lbs., track, and to have sold them over again at 40c. Some quote more than these figures.

Apples.—Market not very active and prices about steady, supplies being liberal and demand light. Sales at auction: No. 2 Spies, \$2 to \$2.50 per barrel; No. 3, \$1.75 to \$2.10; Ben Davis and Baldwins, \$1.75 to \$2 for No. 2, and \$1.50 to \$1.60 for No. 3.

Eggs.—Receipts liberal and demand good. Straight-gathered stock is costing from 18½c. to 19c. at country points, and was selling here at 20c. to 21c., wholesale, grocers paying about 22c., and for strictly selected stock as much as 24c. No. 1 stock was about 21c. Packing going forward actively.

Butter.—There was nothing offering on the local market last week save fresh-made creamery, all the fall makes being consumed, and the dairies and rolls not being offered in any quantity. Notwithstanding the increase in the make, there was barely sufficient to supply the local demand, the result being that prices still held firm. Best creamery was 30c., wholesale. The market broke, however, at the week-end, selling here Monday at not over 26c.

Cheese.—Market dull, and prices steady, being about 11½c. to 11¾c. in the country, for best, and ¼c. more in the city. On Monday, the market was easier, 11 cents being extreme top here.

Grain.—Market for oats has been weak, and declines in price have taken place, leaving No. 2 Canadian Western only 38½c. to 39c., cars, store, and No. 3 one cent less. No. 2 Ontario white oats, 37c., No. 3 one cent less, and No. 4 yet a cent less. No. 3 barley 56½c., No. 4 55c., and feed 54c.

Flour.—Manitobas down all round, being \$5.60 per barrel for first patents, \$5.10 for seconds, and \$4.90 for strong bakers'. Ontario winter wheat patents were steady, at \$5.40 to \$5.50, straight rollers being \$5 to \$5.15.

Feed.—The market for bran has declined, Manitobas being available at \$19, shorts being firm at \$22, Ontario bran \$20 to \$20.50, middlings \$22 to \$23, and pure grain mouille \$32 to \$33, mixed being \$25 to \$28 per ton. Cotton-seed meal \$35 to \$40 per ton.

Hay.—\$15 to \$15.50 per ton for No. 1 hay; \$14 to \$14.50 for No. 2 extra,

\$12.50 to \$13 for No. 2; \$11.50 to \$12 for clover mixed, and \$10.50 to \$11.50 for clover.

Seeds.—Prices steady, at \$17.50 to \$19 per 100 lbs., Montreal, for red clover, \$13 to \$17 for alsike, and \$5.25 to \$7.25 for timothy. Alfalfa is steady at 23c. to 25c. per lb.

Hides.—Uninspected hides, 10c. per lb., Nos. 3, 2 and 1 being 10½c., 11½c. and 12½c., respectively; sheep skins, \$1 to \$1.25 each; lamb skins, 10c.; horse hides, \$1.75 and \$2.50; tallow, 1½c. to 5c. per lb. for rough, and 5c. to 6c. for rendered.

Chicago.

Cattle.—Steers, \$6.25 to \$8.40; cows, \$4.85 to \$7; heifers, \$4.25 to \$7.50; bulls, \$4.75 to \$6.75; calves, \$3 to \$8.60; stockers and feeders, \$4.75 to \$6.75.

Hogs.—Choice heavy, \$9.65 to \$9.75; butchers', \$9.60 to \$9.85; light mixed, \$9.50 to \$9.60; choice light, \$9.60 to \$9.70; packing, \$9.60 to \$9.70; pigs, \$9.10 to \$9.50; bulk of sales, \$9.55 to \$9.70.

Sheep and Lambs.—Sheep, \$6.75 to \$7.75; yearlings, \$7.50 to \$8; lambs, \$7.75 to \$8.90; spring lambs, \$10 to \$12.

Buffalo.

Cattle.—Prime steers, \$7.75 to \$8.25. Veals.—\$6 to \$8.50.

Hogs.—Heavy, \$10.10 to \$10.18; mixed, \$10.15 to \$10.20; Yorkers and pigs, \$10.15 to \$10.25; roughs, \$9 to \$9.25; stags, \$7.50 to \$8.50; dairies, \$10.10 to \$10.20.

Sheep and Lambs.—Lambs, \$7.25 to \$9.25; wethers, \$7.25 to \$7.60; mixed, \$4 to \$7.25.

Cheese Markets.

Stirling, Ont., 11 1-16c. Woodstock, Ont., (mostly May), 10½c. offered; no sales. Brockville, Ont., 10½c. Cornwall, Ont., 10½c. to 10 11-16c. Picton, Ont., 10½c. Iroquois, Ont., 10½c. Napanee, Ont., 10 13-16c. Ste. Hyacinthe, Que., 10½c. London, Ont., 10½c.

British Cattle Markets.

London and Liverpool cables quoted live cattle (American) at 13½c. to 15c., dressed weight; refrigerator beef, 11c. to 11½c. per pound.

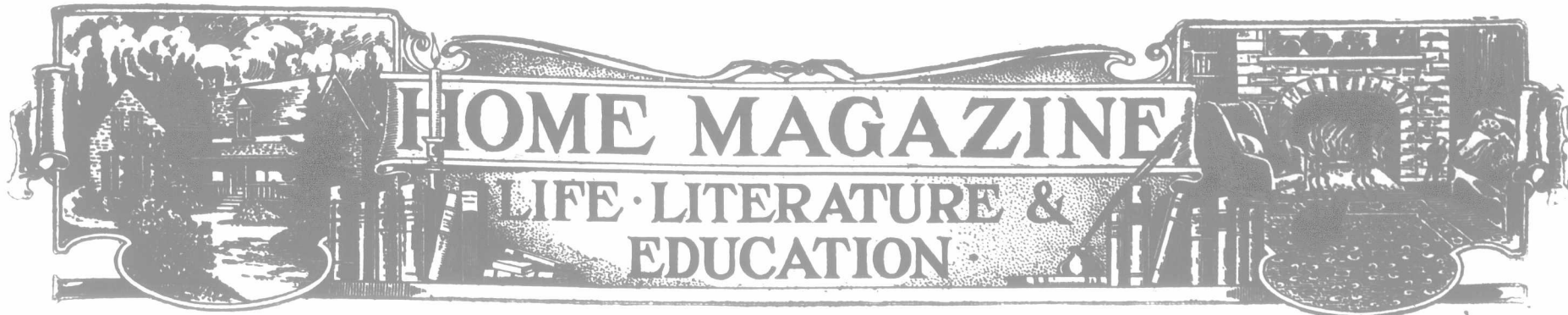
GOSSIP.

O. Sorby, Guelph, Ont., writes: I have just sold the Clydesdale stallion, Golden Victor (imp.), to S. Comfort, of Shedden, Ont. Golden Victor weighs the ton, and has the best quality of feet and legs; he is low-set, deep and wide. His pedigree is of the best, being strongly of the Prince of Wales blood. His sire, Prince of Clay, won first prize at the Highland Society's Show; the sire of his dam, Goldfinder, was champion at the Highland Show. Victor leaves the best of stock. A horse got by him was first prize at Toronto in single dray. He should greatly improve the stock at his new home. The imported Hackney stallion, Sulphate of Copper, goes to Joseph Phillips, of Maidstone, Ont. He is a beautiful young horse, full of size and quality, with the best of Hackney action. His breeding is of the very best. His sire, Copper King, was the supreme grand champion at London, England, in 1909; his dam, Dainty Princess, was also second at the same show. She is by the far-famed Garton Duke of Connaught. People will find it greatly to their advantage to use this excellent young stallion.

TRADE TOPIC.

HOMESECKERS' EXCURSIONS TO WESTERN CANADA.

Through the metropolis of Chicago, thence via Duluth and Fort Frances, or through Chicago and the Twin Cities of Minneapolis and St. Paul, May 17th and 31st, via Sarnia and Northern Navigation Company. Steamer leaves Sarnia 3.30 p. m., May 30th. Secure tickets and full information from Grand Trunk Agents.



The Late King, Edward VII.



King George V.

THE BRITISH EMPIRE IN MOURNING.

When, last Friday night, the bells of the Empire tolling, and the flags of the world at half-mast, proclaimed that the King of the British Empire was dead—dead ere the sixty-ninth anniversary of his birth—the first wave that swept about the globe wherever the flags of Britain flew, or the hand of friendship had been extended to her, was one of profound sorrow. Edward had been beloved. The end had come quickly, unexpectedly; the news had been as a blow from the Unseen.

Then the significance of the death of the King began to impress itself vaguely, disturbingly, on the minds of men. Britain had been caught by this event in the midst of one of the most tremendous political struggles on record; and the event, one of profound personal grief before, began to assume the proportions of a possible national calamity. Politics stood still; men questioned, and still are questioning. Yet they can but hope for the future.—Le roi est mort, vive le roi!

The new King, George V., has been so reserved that his character and political opinions are practically unknown but the Empire trusts that the responsibilities of kingship will develop in him those qualities which have made the reigns of his father and his grandmother so happily successful.

An English sovereign, it has been said, has three constitutional rights: the right to be consulted, the right to encourage, and the right to warn, and it has been added that a ruler of great sense and sagacity would need no others.

During his reign, King Edward has shown abundantly the truth of the latter statement. He has invariably listened with wise intelligence to the advice of his ministers; he has invariably "encouraged"; and when he has interfered in domestic politics, it has been to warn and direct his Empire from perilous ways. Pre-eminently he has been a peacemaker, and he has striven for peace, not only with-

in his own dominions, but for the world-peace which every noble mind so greatly desires.

It was with his approval that the proposals for limitation of armaments were presented at the Hague Conference. He has more than once, in the face of possible crises, made personal trips to the Continent, and held those private conferences with monarchs and statesmen, which his native tact and genial personality so well fitted him to conduct, and which, though so little blazoned, have been sufficient to pour oil on troubled waters. His influence has brought about an entente with France, some years ago almost actively anti-British in spirit; through him, breaches with Germany have been closed, and friendships strengthened with Spain and Portugal and Italy and Austria and Japan. At all times he has shown a genuine and wholesome liking for the United States, and admiration for its administration.

Nor when the great political crisis within his own dominions came—the

fierce fight for a more just and democratic basis, which has marked the Asquith administration as one of the most daring on record—not even then was the King's unfailing good sense found wanting. By his assent to the Budget, last month, King Edward proved at once his wisdom, and the fact that he has been a King for the people.

Possibly, too, the qualities which have made for his success as a diplomat have rendered him, as he has been always, "good King Ted" to the mass of his subjects. "Too naturally dignified to be always thinking of his dignity, too modern in instinct and feeling to call in the aid of ceremony when ceremony was out of place, he had the happy knack of reaching the popular heart by the infallible process of always doing and saying the right thing at the right time."

Innumerable incidents have been told of him which show that royalty in the person of a sovereign wise and kindly is human—intensely, lovably human.

Needless to say, the business world will suffer by the death of the King, coming, as it did, at the beginning of the gay summer season, which means so much to all the lines of industry dependent upon the upper social strata for a living. Upon the announcement, many lines of speculation came to a sudden halt, and the stock-markets were immediately affected.

"King Edward" will be remembered by our especial audience, who have followed the successes of his farms at Windsor and Sandringham, as "the farmer king." His name will go down through history as that of Edward the Peacemaker. His personality will live in the affections of his people, who have been touched immeasurably with the truth and the pathos of his last words, "Well, it is all over, but I think I have done my duty"—his simple "duty," the greatest thing in the world!

Brief Sketch of the Late King's Life.

Albert Edward, the late King, was born at Buckingham Palace, November 9th, 1841. His early education was conducted by private tutors, and at 18 years of age he made an extensive tour through Europe. On his return he settled down to a serious course of study at Edinburgh, and in 1860 he visited America, where his geniality and winning personality everywhere won him hosts of friends. There are still many in the chief cities of Canada who remember having met the Prince of Wales on that occasion. Later he took lectures at Oxford, and went into residence for three years at Cambridge University. In 1861 he met the Princess Alexandra of Denmark, and the marriage, which, contrary to the too usual rule in royal circles, was essentially a "love match," took place on March 10th, 1863. On January 23rd, 1901, he succeeded to the throne of the British Empire, and since then he has abundantly shown his qualities for kingship. He had six children: Prince Albert Victor, who died in 1892; Prince George, the present King; Princess Louise Victoria, Duchess of Fife; Princess Victoria Alexandra; Princess Maud, Queen of Norway; and Prince Alexander, who died in infancy.

The New King.

George V. was born at Marlborough House, London, June 3rd, 1865. At thirteen, he joined the Britannia training ship, hence his education, as his father had chosen, was mainly that of the navy. He made rapid progress, and appears to have been a general favorite. On the death of his elder brother, in 1892, however, he was withdrawn from the navy to prepare himself for becoming a sovereign. To this end, he was created Duke of York, and shortly afterwards he married the Princess Victoria Mary (May) of Teck, to whom his brother had been betrothed. As

Prince of Wales, his character or his opinions have been but little known. In appearance, he has none of the Guelph characteristics; he resembles strongly his mother's family, and is most strikingly like his cousin, the present Czar of Russia. He has had good training, however, according to British ideals, and his development, as King of the British Empire, will be watched with interest. King George and Queen Mary have six children: Edward Albert, born June 23rd, 1894; Albert Frederick; Princess Victoria Alexandra; Henry William; George Edward, and John Charles.

Our English Letter.

IX.

Writing only at fortnightly intervals, and with the knowledge that one's messages cannot fail to have a somewhat belated air, naturally is very restrictive as to one's choice of subjects.

Just now I should like to enlarge upon the sweet spring surprises which every day brings with it: the soft Devon breezes, the primroses, and their cousins, the oxslips; the sweet violets, the daffodils, the purple-tinted lilacs, the green shoots of the coming roses; the busy bird-builders; the sounds and scents of early spring. But by the time this reaches you, many of these will be delighting you, also, in your Canadian homes, and you will already have become forlorn with your somewhat overlong winter, and be planning what seeds you shall plant in the fields you have plowed, and in the gardens you have already laid out.

I had better, therefore, tell, to-day, of some of the happenings which have been interesting me, and which I venture to think may be of some interest to you, as well. To begin with, on the Thursday before Good Friday, the 25th of March, there was held at Westminster Abbey the picturesque ceremony, handed down for no less than 300 years, of distributing to deserving old men and women what is known as the "King's Maundy Gifts." These gifts were instituted by Edward III., in 1363, and custom requires that the recipients should in number be equal to the years of the reigning King's age. Accordingly, sixty-nine men and sixty-nine women were benefited this year.

Shortly before 1 o'clock a procession formed in the nave of the Abbey. There were choristers, clergy, almoners, and Yeomen of the Guard. The sergeant-major of the Yeomen carried on his head a huge dish containing the Royal Maundy gifts. The gold was in red net purses, and the silver in white net purses. The procession passed from the nave to the choir, and there the alms were placed on a table.

Each man received £2 5s., in lieu of the clothing which monarchs of a former day were accustomed to distribute, £1 10s. instead of provisions, £1 in respect of the gold maundy, and silver maundy to the amount of 5s. 9d., one penny for each year of the King's age, and composed of the specially-minted penny, twopenny, threepenny and fourpenny pieces which are popularly known as "The Maundy Money." Thus, each man received, all together, £5 0s. 9d., and each woman 10s. less, the allowance for female clothing being £1 15s. in each case, as against £2 5s. for each man. Many old men and women were too feeble to attend, and to these the money will be sent. Amongst the representatives of the Royal Family in attendance were, Princess Henry of Battenberg, Prince Maurice of Battenberg, Princess Erlich-Schomberg, and Princess Marie Louise of Schleswig-Holstein.

A MYTHICAL LEGACY

of buns and sixpences for aged widows, a churchward some repeated yearly since the fifteenth century, and yet its founder's name has either never been recorded, or has been forgotten. The tradition is that some Lady Bountiful of the fifteenth century lies beneath the tombstone, and

that before she left worldly things behind her, she made a will in the terms of which twenty-one elderly widows of the parish of Smithfield were to receive doles from her estate, and that prayers were to be said for her soul on the morning of every Good Friday. So far as any authentic information is concerned, this story may be treated as a myth. There is no name on the tombstone, and there is no record in the annals of the parish of any such bequest. In recent years sums of money have been left for the purpose of continuing these Easter doles, the last donor being a Fleet Street stationer named Butterworth. The interest from this legacy, supplemented by gifts from churchwardens, amounts to twelve and sixpence, which, after allowing for the twenty-one sixpences, leave two shillings to be expended in not-cross buns.

In whatever way it originated, this custom has existed for centuries, and yesterday it was observed with all the old formalities. The old ladies assembled in the church porch, and then—with painful effort in some cases—had to ascend a short ladder to the churchyard, for that is the only means of access. It is hemmed in on three sides by buildings, and on the fourth side there is a wall, which can be surmounted only with help. The selected recipients gathered round the tombstone, on which the sixpences were deposited singly, and each one stooped and picked it up, often with complaints about "the rheumatics." The buns were afterwards handed to them by an official of the church, and one old dame did a charmingly gracious act when she received hers. Observing a little boy looking with longing eyes at the buns, she broke one in two.

"There, sonny," she said, "eat that, and when you've finished I'll give you another bit."

When the distribution was over, Mr. Turner gathered the women together and presented each with a shilling, bright and new like the sixpences. They made a pathetic group as they stood around him, with a little company of curious onlookers, amongst whom were one or two smartly-dressed ladies and some neatly-attired nurses from St. Bartholomew's Hospital. The oldest of the recipients has resided in Smithfield forty years, and she has lived to see the parish become less and less a residential quarter. So steady has been the departure of householders that the Good Friday distribution of sixpences is likely to cease, not for want of money, but for the lack of the necessary twenty-one widowed residents who can claim the benefaction.

LONDON VAN-HORSE PARADE.

The idea of this yearly parade, with its spectacular effect and humane purpose, originated with the Baroness Burdett-Coutts, and, in spite of the coming of the motor-van, and the many rivals to the horse as a minister to man's pleasures and necessities, was, this Easter Monday, larger, even, than ever before.

All the horses entered are rigorously inspected from hoof to forelock, and the principle of judging is similar to that of some baby shows. Only the proper management and grooming of the animals is taken into consideration.

A feature of this year's parade, in Regent's Park, on Easter Monday, was the number of men who competed for long-service awards. There is no profession anywhere that has been so constant as that of horse-keeper, and the disappearance of so many omnibus drivers gives extra interest to the bestowal of the long-service awards, which are always cheered to the echo by large crowds.

Perhaps there could be no better object-lesson as a set-off against the cruelties but too often practiced than this most humane demonstration. The "heavy horse" seems to have a supremacy in England, and very proud were the prizewinners, not a driver among them being unaccompanied. If he had not his mate or mates, or his attendant boy and his

particular companions, he brought his family with him to share his anticipated triumph. In numerous instances the van party consisted of "Me, and the missus, and the kids."

I wonder if you have heard of "The Welsh Egg Train"? its object being to give expert demonstrations for educative purposes, especially for the testing and packing of eggs, the trussing of poultry, etc., with the view to increasing the market value of both. To quote from a daily paper: "A model poultry shop on wheels is the best description of the demonstration car which will form part of the egg-train to tour South Wales in April, as arranged by the Agricultural Organization Society and the National Poultry Organization Society. From April 15th to April 23rd the train will be taken an intricate course through the Counties of Cardigan, Carmarthen, and Pembrokeshire. At each stopping-place visited, addresses on the production and marketing of eggs and poultry will be given by three experts.

The car is so constructed that the whole of one of the side walls can be speedily removed. In this way large audiences will be able to view the interior and all its contents, as the lecturers give their addresses. Among other demonstrations will be one of egg-testing, while specially-approved egg-boxes will be shown, and an expert will demonstrate the speediest and safest method of packing.

Show a poultry-dealer a dressed fowl, and in nine cases out of ten he can tell where it comes from. Most of the counties have distinctive fashions in poultry-dressing, and dressed fowls from Surrey and Devonshire will be shown, so that the good points of each system may be compared. The price of a fowl in the London market depends largely upon the trussing and the dressing, and it is thought that, by inducing Welsh farmers to pay more attention to these points, better prices might be obtained for Welsh produce."

That Welsh poultry and Welsh eggs are of the best, I have good reason to know, for, has not the postman brought me, on one occasion, a fine fat spring chicken, and on another a carefully-packed box of fresh eggs, as a gift from the dear little lady-farmer of Verwick, near Cardigan, who not only has read "The Farmer's Advocate" for many years, but who has passed it on to her neighbors, that they may get, as she says she often has herself, many a practical hint from the valuable experiences of housewives and house-mothers of Canada, as recorded in its pages.

H. A. B.

Hope's Quiet Hour.

Eat, O Friends!

I am come into my garden, my sister, my spouse; I have gathered my myrrh with my spice; I have eaten my honey-comb with my milk; I have drunk my wine with my milk; eat, O friends, drink, yea, drink abundantly, O beloved—Cant. v. 1.

You say, "Unless a man shall work Right earnestly and never shrink, He may not eat"—Now look, the change is small.

And yet the truth is plain to see, Unless man eats, and frequently— He cannot work at all.

—Charlotte P. Stetson.

The Bible is full of invitations to the marriage-feast of the King's Son. In the beginning of Genesis we read how God prepared for His beloved friends "every tree that is pleasant to the sight and good for food; the tree of life also in the midst of the garden" (that tree from which man, by his own sin, barred himself). In the last chapter of the Bible, we read how the Spirit and the Bride continually call to the feast, and this world-wide invitation is respected by all who accept it for themselves—let him that heareth say, "Come." Over and over again, the servants of the King—Apostles and prophets, preachers, and

teachers, learned leaders and ignorant disciples—call to the hungry: "Come and eat!" to the thirsty: "Come and drink!" The cry resounded from east to west, and now it is echoed back from west to east again: "Ho, every one that thirsteth, come ye to the waters, and he that hath no money; come ye, buy, and eat; yea, come, buy wine and milk without money and without price. Wherefore do ye spend money for that which is not bread? and your labor for that which satisfieth not? hearken diligently unto me, and eat ye that which is good, and let your soul delight itself in fatness."

And yet everywhere we see men and women devoting all their energies to the pursuit of "that which satisfieth not," growing careworn and weary from the toil of climbing up the hill of earthly greatness, paying little heed to the wonderful invitation of Him who is "altogether lovely," to feast with Him in His garden. He cares—what a wonderful thought that is. It is not only for our joy and profit that the Bridegroom awakes our careless souls with His pleading call: "I am come into my garden, my sister, my spouse . . . eat, O friends; drink, yea, drink abundantly, O beloved!" It is not only the necessities of life that He has provided for His bride. In the text are mentioned such luxuries as "spice, honey and wine."

When the disciples were overpressed by work, so that "they had no leisure so much as to eat," their Master—always watchful and considerate—said to them, "Come ye yourselves apart into a desert place, and rest a while." It is a wrong to our dear Lord to act as though He cared only to have us work for Him. Like any other bridegroom, He seeks out opportunities of quiet, refreshing communion with His beloved—and only He knows how often His voice is drowned or unheeded in the rush of business or pleasure. We love our Master, and we try to prove our love by working for Him. That is a good thing—in moderation. A wife should work to prove her love for her husband, but they drift apart if she is working too incessantly to be his companion. The sweetness of fellowship should not fade when the betrothal blossoms out into marriage, but should grow stronger and more satisfying all through the years. And marriage is the earthly shadow of our fellowship with God. He desired to eat the passover with the Apostles—"I have heartily desired" is the marginal rendering of S. Luke xiii: 15—and He heartily desires also to keep life's feast of joy with us.

And what infinite loss we sustain if we pay no attention to His gracious invitation!

"Unless man eats, and frequently—
He cannot work at all."

This is self-evident in the natural life. In order to do good work—either manual or brain-work—it is necessary that sufficient nourishing food be eaten and digested. In many city schools, meals are provided for the poorer children, because it has been proved so certainly that they can't learn their lessons properly unless they are properly fed.

And this rule holds good in the spiritual life. To do good work for God, and to grow in holiness, we must come to Him regularly and frequently. The attempt to live a Christian life without conscious communion with God is as foolish as to attempt to live the natural life without food and fresh air. And yet a practically prayerless life is only too common, even among those who are trying to follow Christ. Don't we all find that prayer is often a mere formality, hurried through as a duty, and forgotten very quickly in the day's rush? And yet there is no need for us to wrong ourselves and Christ in this way. Lack of time is not the real reason. If you love anyone, and only get a chance for a hand-clasp, or a smile, or a bright "Good morning, dear!" doesn't the sweetness of that meeting fill the whole day? But love is strengthened by food, and dies of neglect. When lovers are parted, if they seldom meet in spirit, or neglect opportunities of sending messages, they usually drift apart. And, if we are careless about meeting with Christ, or hurry through the occasional talk with Him because like Martha we are too "concerned about much serving" to enjoy sit-

ting quietly at His feet, then we are starving our spiritual life. Little wonder if it is poor and thin and weak.

Do you think it is an unjust law that "to him that hath shall be given," more and more abundantly? It holds good always. If your mind is well stored with knowledge, it will continually reach out to grasp more; if your body is strong and healthy, it will find health everywhere, and thrive in cold and heat, on work and play; if your soul is eagerly accepting and assimilating the Life of God, it will find that Life in every environment.

A book agent was once trying to sell me a book, and I remarked: "Just look round this room and you will see that we have hundreds of books, already—what need is there for more?" The man knew his business. Quick as a flash he answered: "It is in the houses where there are lots of books that I find it easiest to sell—the people there are readers." He was quite right, and my remark was proved a foolish one. The people who surround themselves with books will want more books, and will secure them—where there's a will there's a way. The people who pray, and read their Bibles, will grow more and more hungry for the food which is like the daily supply of bread from heaven in the wilderness journey—sweeter than honey and the honeycomb—and will more eagerly come to the smitten Rock to satisfy their continual thirst for God's perfect holiness. And the reverse is also true—let us note the fact, and act accordingly—if our prayers are formal, careless and hurried; as a natural, inevitable result, they will grow more careless, until they become as meaningless as the famous prayer-wheels of Tibet—prayers ground out by a machine.

We are invited to the marriage-feast. No one is too sinful to be included in the invitation; but the King provides a suitable robe for each guest, and anyone who refuses to wear it will lose his place—the place especially provided for him. Over and over again in S. Paul's epistles, men are told to "put off the old man and put on the new man," to "put on Christ." What does that mean? How can we be "clothed with Christ"? One way, at least, of "putting on" another person is to be constantly in his company. Slowly, but surely, the weaker nature catches inspiration from the stronger. The high ideals of the leader become the ideals of his followers. If this life be a trysting-place with Christ, then it can no longer be a desert, but a garden of spices, which "shall rejoice, and blossom as the rose . . . and the parched ground shall become a pool, and the thirsty land springs of water."—Isa. xxxv. Then the holiness and power of the Bridegroom shall purify and strengthen the soul that gazes ever into His eyes, keeping always close at His side. Then the character of the disciple shall be more and more transformed into the likeness of the Master. Then the eager soul will joyfully accept the invitation to become one with the Beloved in the mystery of the Lord's Supper, saying, with George Herbert, in wondering faith:

"To me dost now Thyself convey;

By the way of nourishment and strength
Thou creep'st into my breast,
Making Thy way my rest."

DORA FARNCOMB.

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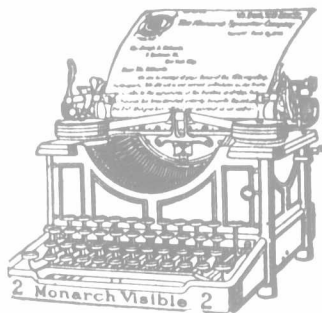
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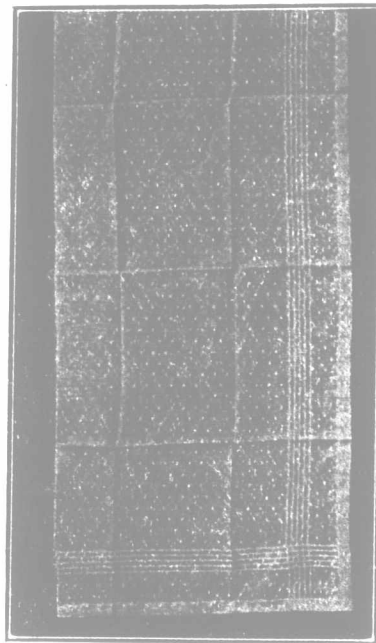
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200 Mountain Street, Montreal, P. Q.

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.]

June Weddings.

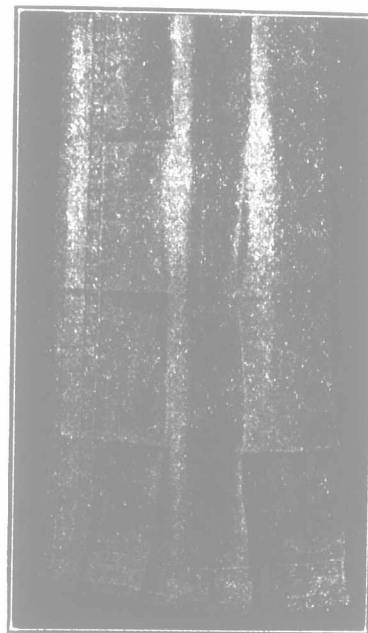
As June draws near, requests for information re how to conduct weddings increase in numbers,—hence the following:



Dotted Swiss bedroom curtains, with narrow tucks.

Invitations to a wedding should be issued not later than fifteen days, and not earlier than four weeks before the date set for the marriage. They should be engraved (some use printed sheets, which are less expensive) in plain script, on fine, smooth, dull-finished, white or cream paper, with envelopes to match. When mailing, these envelopes should not be sealed, but should be slipped inside of larger, less expensive ones.

For a church wedding, the invitations should be worded as follows, with variations to suit especial circumstances:



Plain Swiss muslin, trimmed with insertion and lace.

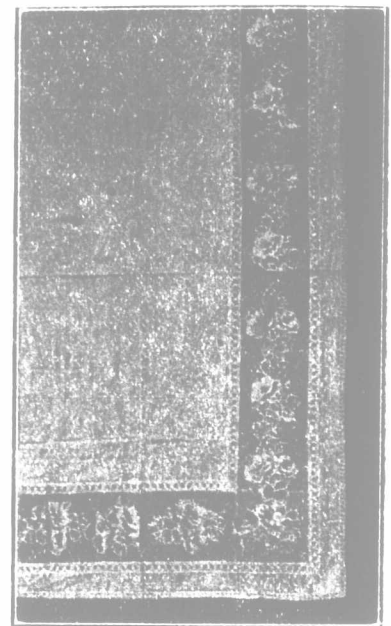
Mr. and Mrs. John Smith
request the pleasure of your presence at
the marriage of their daughter
Mary
to
Mr. James Brown,
on Monday afternoon, June the tenth,
at four o'clock,
Saint John's Church,
Smithville.

For a house wedding, the wording would be the same, except that the word "company" is substituted for "presence," and the place of residence is given in place of the church. When a church wedding is succeeded by a reception or

breakfast, a card to that effect, in similar script, should be slipped into the envelope along with the invitation. For a home wedding, the words, "And afterwards at breakfast," with address of bride's parents, is sometimes placed in smaller lettering, at the bottom of the page.

It is not necessary to send a written reply to a wedding invitation unless the cards include a breakfast or luncheon at the home of the bride, or bear the letters R. S. V. P. (Respondit s'il vous plait, or "Reply if you please").

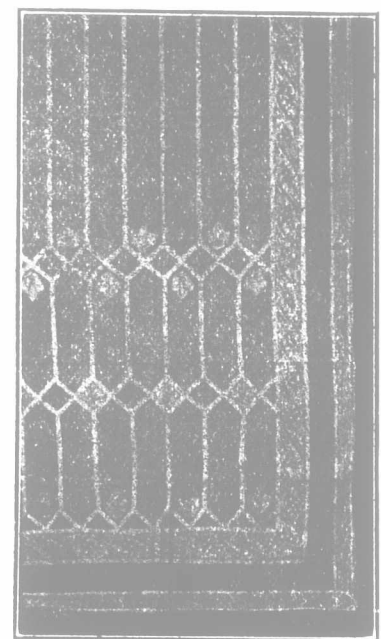
The father and mother of the bride must, of course, assume all the expenses of the wedding, with few exceptions.



Curtain of plain scrim, with border cut from cretonne or chintz. A stencil pattern might be used for border.

They must provide the carriages that convey the bride and bridesmaids to the church, but need not provide carriages for guests, except when the guests are asked from town to a wedding in the country. The groom pays the fees, gives souvenirs to the best man and ushers, pays the sexton, provides the carriages for the ushers, and the one in which he and the bride drive away after the ceremony. At every point he acts, of course, as host to the best man.

As soon as her invitations are issued, the bride will, from time to time, find



Curtain of cable net, with linen banding applied. Small figures of blue canvas help in the design, being stitched on by machine or buttonholed down.

herself the recipient of gifts, and she must personally return by note prompt and cordial thanks for every article as soon as possible after it arrives.

Wedding presents are usually displayed on the day of the wedding. Of late, it is considered in better taste to remove the cards accompanying.

A bride may choose to be "unattended" at her wedding, or may have one or more bridesmaids, often three, besides the maid of honor, who is a sister or most intimate friend. The next important point

PEASE "ECONOMY" FURNACE

Summer Temperature in Every Room

That's what the "Economy" system means. Read the thermometer the coldest day in January or the stormiest in March. It always stands at 70°.

Simple to Operate

Your boy or girl can attend to it. I want to tell you about another Pease Feature—the "Economy" Air Blast. It throws hot air into the space above the fire. This, mixing with the gases, creates heat units. In the ordinary furnace these gases escape up the smoke pipe—most of this heat is wasted. Just another feature of the "Economy" Furnace. Learn more about it—look for my next talk.

WRIGHT FURNACE

Send to-day for our free booklet—"The Question of Heating."

PEASE FOUNDRY COMPANY Limited

Toronto and Winnipeg

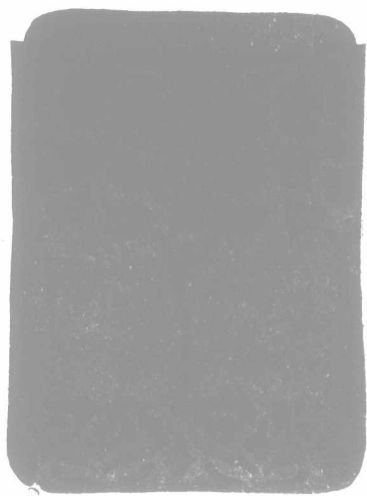
We manufacture, exclusively, Warm Air, Hot Water, Steam and Combination Heating Systems.



is the gowning. When she is unattended, and intends going directly from the church to the station, the bride usually wears her travelling suit. Otherwise she wears pure white, with a veil, while the bridesmaids choose some pretty color scheme and wear hats (if at a church wedding). The bride carries either a bouquet of white flowers, or a white prayer-book. She is expected to give each of the bridesmaids a pretty souvenir of the occasion; also, on the morning of the wedding, she sends to the house of each usher the boutonniere she wishes him to wear, just a white carnation, white rosebud, etc. Although she does not personally ask the ushers to serve, she has the privilege of choosing them. They are invited by any near relative.

point where the bride and groom are to stand. The bridesmaids follow the same maneuver, but pass up higher into the chancel, thus completing the crescent about the chief bridal group. A simpler plan, where ushers and bridesmaids are few, is for the ushers to move to the right, the bridesmaids to the left, completing the semicircle in this way.

Arriving at the center of this crescent, the bride draws her hand from the arm of her father and puts it into the hand of the groom, who has advanced to meet her, and thus she is led before the clergyman. The maid of honor, standing nearest to her, performs such services as are necessary, holds her bouquet and glove until the ceremony is concluded, etc.



Bag or case with stencilled design.



Shopping bag, stencilled.

Often, in order to prevent mistake, the wedding is rehearsed, until each of the party knows his or her part. The real wedding may be set for any hour between 10.30 a. m. and 9 p. m. Night weddings are not, however, as fashionable as they once were.

For a church wedding, the decorations may be anything that the bride chooses, but it is wise to select just one kind of flowers, with plenty of green,—ferns, palms, etc. Roses are beautiful, but hard to obtain in sufficient mass to make the most effective decoration. Marguerites—the common ox-eye daisies—are splendid, as they are effective, and do not wither quickly. Later in the season, white asters are fine. White ribbon may be used to mark off the seats reserved for guests, if onlookers are admitted.

On the stroke of the hour named in



Stencil Design.

Repeat to form square or border. Enlarge to required size.



Stencil Design: Enlarge to required Size.

the invitations, the bride arrives at the church (the guests come earlier); the organist is given the signal, and begins the wedding march, and the bridal party enters. First, the ushers walk forward, two and two, then the bridesmaids in similar order. Behind these comes the maid of honor, walking alone, then the bride, leaning on the arm of her father. The groom and his best man are, of course, already waiting at the front of the church. Arriving at the foot of the chancel steps, or the equivalent, the ushers break ranks, one half of their number moving to the right, the other half to the left, forming a sort of semicircle of an arc on either side of the

When the rite is over, another triumphant wedding march begins, and the wedding party moves slowly out, the bride and groom leading, the maid of honor, with the best man, and every bridesmaid on the arm of an usher. The nearest relatives and the guests follow after. The bride and groom drive off first in their own carriage, followed immediately by the bride's family.

Now, this is a formal wedding, which may, of course, be varied by the addition of flower girls and page boys. A home wedding had better be as simple as may be, much simpler than this, but so many of you girls have asked for the formal church wedding that I have given

DR. WOOD'S NORWAY PINE SYRUP.

Is Specially Calculated To Cure All Diseases of the Throat and Lungs.

Coughs, Colds, Bronchitis, Sore Throat, Hoarseness, Croup, Pain or Tightness in the Chest; and all Bronchial Troubles yield quickly to the curative powers of this prince of pectoral remedies. It contains all the virtues of the world famous Norway pine tree, combined with Wild Cherry Bark, and the soothing, healing and expectorant properties of other excellent herbs and barks.

Mrs. John Pelch, Windsor, Ontario, writes:—"I was troubled with a nasty hacking cough for the past six months and used a lot of different remedies but they did me no good. At last I was advised by a friend to try Dr. Wood's Norway Pine Syrup and with the first few doses I found great relief and to-day my hacking cough has entirely disappeared and I am never without Dr. Wood's Norway Pine Syrup in the house."

The price of Dr. Wood's Norway Pine Syrup is 25 cents per bottle. It is put up in a yellow wrapper, three pine trees the trade mark, so be sure and accept none of the many substitutes of the original "Norway Pine Syrup."

Manufactured only by The T. Milburn Co., Limited, Toronto, Ont.

SPRINGTIME—FRECKLE TIME



Now's the time, if you freckle, to get ahead of those wee pests that disfigure a good complexion. Don't wait until they appear, begin now.

PRINCESS COMPLEXION PURIFIER

An antiseptic remedy, removes tan, freckles, mothpaches and discolorations, and makes the skin clear, smooth and healthy; cures pimples, rashes and blackheads. Price, \$1.50. Express paid.

SUPERFLUOUS HAIR, Moles, etc., eradicated forever by Electrolysis. Satisfaction assured. Booklet "F" mailed free.

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SCIENCE (Including Engineering)

The Arts course may be taken without attendance, but students desiring to graduate must attend one session. There were 1517 students registered session 1909-10.

For Calendars, write the Registrar,
GEO. Y. CHOWN, B.A.
Kingston, Ontario.

BOYS FOR FARM HELP The managers of Dr. Barnardo's Homes invite applications from farmers, or others, for the boys who are arriving periodically from England to be placed in this country. The young immigrants are mostly between 11 and 13 years of age; all will have passed through a period of training in Dr. Barnardo's English Institutions, and will have been carefully selected with a view to their moral and physical suitability for Canadian life. Full particulars as to the terms and conditions upon which the boys are placed may be obtained upon application to Mr. Alfred B. Owen, Agent Dr. Barnardo's Homes, 50-52 Peter St., Toronto.



DOES A WASHING JUST LIKE PLAY!

Six Minutes to Wash a Tubful!

Ladies! just see how easy I do a big washing with my 1900 Gravity Washer. I start the tub a whirling. Then the gravity device under the tub begins to help and the rest is just like play. Washes a tubful in six minutes! How's that for quick and easy work? The 1900 Washer Co. sent me this marvellous machine on trial. They didn't ask for notes or cash in advance. And they let me pay for it a little each week out of the money I saved me! They treat everybody the same way.



You can have one shipped FREE

on thirty days' trial, the same as I got mine. The company will let you pay for it on the same easy terms they offered me. The Washer will actually pay for itself in a very short time. Mine did! I wouldn't take \$100 cash for my 1900 Gravity Washer if I couldn't get another just like it. It does beautiful work—handles anything from heavy blankets to daintiest laces. Every housewife who is tired of being a drudge and a slave to the washtub should write to

F. A. BACH, Manager.

The 1900 Washer Co., 357 Yonge Street TORONTO, ONTARIO 2191

for their beautiful Washer Book and generous offer of a Washer on free trial.

MRS. R. H. FREDERICK.

The above offer is not good in Toronto or Montreal and suburbs. Restricted to other districts.

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CAN BE CURED. My mild, soothing, guaranteed cure does it, and FREE SAMPLE proves it. STOPS THE ITCHING and cures to stay. WRITE NOW—TO-DAY. DR. CANNADAY, 99 Park Square, Sedalia, Mo.

FURNITURE TO YOU at Factory Prices.

The examples below are two of the many remarkable values contained in our large illustrated catalogue No. 7. It shows photographic illustrations of 500 other just such splendid bargains for every room in the home. You ought to have this catalogue. Your furniture dealer could tell you—if he would—that he can't buy these pieces from the factories for the money. Buying the frames in hundreds and operating our upholstery workrooms on this work during the dull periods enable us to get the prices down to the lowest notch.



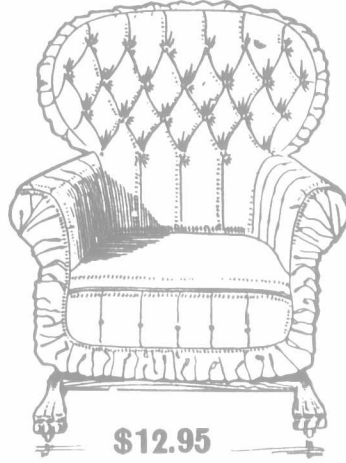
\$3.45

This Large, Comfortable Rocker for \$5.45.

Exactly as shown in illustration on the left. Frame is made of solid oak, hand-polished, and elaborate carved front posts. Seat and back are upholstered in best grade imitation leather, which will wear and look equal to genuine leather. This rocker is easily worth \$10.00.

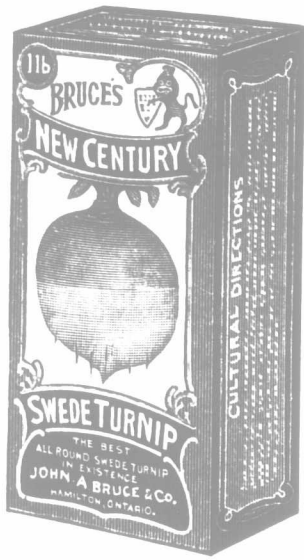
An Elegant Turkish Rocker for \$12.95.

Just as shown in the picture here, large and comfortable, deep spring seat, buttoned back, ruffled borders, all over upholstered in best imitation leather. This rocker is mounted on solid oak platform, has carved claw feet. A marvel of good value. It has every appearance of a chair costing \$30.00 to \$40.00.



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BRUCE'S NEW CENTURY SWEDE TURNIP

SALES season 1901, when first introduced, 16 lbs.; 1906, 4,351 lbs.; 1909, 9,370 lbs. The best all-round variety. It is one of the few Swedes that resist mildew, the best shipping variety, and for cooking purposes cannot be excelled by any other Swede. It is a purple-topped variety, resembling Westbury, of splendid uniform growth, of fine quality, a heavy cropper, and the roots are clean and of handsome shape. In sections where large quantities are grown for the American market, the growers and shippers will have no other. ¼ lb., 17c.; ½ lb., 28c.; 1 lb., 45c.; 4 lbs., \$1.60, postpaid.

Bruce's Mam. Inter. Smooth White Carrot

Sales, season 1891 when first introduced, 14 lbs., now 1,352 lbs. The best of all field Carrots, and invaluable for horses. This grand half-long Carrot is of large size, solid, productive, of finest quality, a splendid keeper, and has the advantage of being much more early harvested than the old long varieties. ¼ lb., 17c.; ½ lb., 33c.; 1 lb., 55c., postpaid.

Send for our handsome illustrated, 104-page Catalogue of Vegetable, Farm and Flower Seeds, Plants, Bulbs, Poultry Supplies, Garden Implements, etc. FREE.

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An Edison Phonograph will surprise you

The first time you hear it you will be surprised at its goodness. Everybody is—particularly the first time you hear the Edison Phonograph play an Amberol Record.

People who have heard Phonographs talked about, or who have heard them at a distance on the street, or who have heard some other make of sound-reproducing machine, do not realize the remarkable goodness of the Edison Phonograph.

This is partly due to the wonderful sapphire point which does not scratch or make any sound, and partly due to the wonderful Amberol Records which are so smooth and clear that they can reproduce the finest violin melody with all its natural sweetness.

This is the same instrument which plays and sings those musical comedy songs which everybody whistles.

The Edison Phonograph does everything and does it well.

Is there any reason why you should not have one?

Edison Phonographs - \$10.50 to \$240 Edison Amberol Records (play twice as long) 1.25c.
Edison Standard Records - 40c. Edison Grand Opera Records - 85c and \$1.25

There are Edison dealers everywhere. Go to the nearest and hear the Edison Phonograph play both Edison Standard and Amberol Records. Get complete catalogs from your dealer or from us.

National Phonograph Co., 100 Lakeside Ave., Orange, N. J., U. S. A.

THE EDISON BUSINESS PHONOGRAPH saves the time of high-salaried men and increases their letter-writing capacity.

it to you in full. If you have a wedding at all, I really think a church wedding is more sacred and more appropriate than any other.

And, now, girls, will you please save this and pass it on to your friends who are particularly interested? You see, I have had to abridge it all from reams of books, etc., on the etiquette of the day, and I do not want to repeat, at least, before the approach of June next year.

Just a word more. When a bride has only a maid of honor, and no bridesmaids, the ushers need not precede to the altar, the maid of honor and best man being sufficient. If there is no maid of honor, the bride's father, instead of retiring at the usual point, remains beside her throughout the ceremony, and takes the place of the maid of honor. When going up and down the aisle, the bride must, of course, keep an air of quiet dignity, looking neither to right nor left, and making no attempt to recognize friends until it is time for the reception to begin.

(To be continued.)

Creamed Potatoes.

Dear Dame Durden,—I am one of the interested ones who never fail to read the Ingle Nook corner of "The Farmer's Advocate," and think there is much to be learned, if we could only remember all we read. As so many are interested in stencilling, could not some patterns be given in "The Farmer's Advocate," which we could copy from? I know there have already been a few given, but not just what I should like. I would like a pretty floral design for a cushion, also some floral and conventional designs for curtains, quite simple and plain, yet neat. Would like a recipe for creamed potatoes.

Brant Co., Ont.

Creamed Potatoes.—(1) Mash boiled potatoes, add butter, a spoonful of sugar, salt and white pepper to taste, a cup of sweet cream. Beat well, put in a dish and brown in a hot oven. (2)

Boil the potatoes and cut them in small pieces. Put in a pan over the fire, moisten well with cream, season to taste, and, when hot, turn into a baking dish. Level the top, sprinkle bits of butter and some grated cheese over the top, and brown in a hot oven. A few cubes of fried bacon may be added if liked. (3) Eight medium potatoes cut in dice. Make a thin, white sauce, with milk and flour. Add one tablespoon chopped parsley and some minced onion to the potatoes. Season with salt and cayenne, or paprika. Turn over all the white sauce. Let boil up once, and serve. New potatoes are nice done this way.

Accompanying this you will find a few stencilling designs. I am on the lookout for a floral design for your cushion, but a strictly floral pattern is hard to find now that severely conventionalized designs are so much in favor.

Some Useful Hints.

Dear Dame Durden,—Like so many others who have written, I have often intended writing to express my appreciation of the Ingle Nook and its members. Time goes quickly, however, when we are happily and busily engaged, as are most of our farmers' wives.

Did any of the Nook readers ever try cleaning their unpainted floors at house-cleaning time with a teaspoon of concentrated lye (use Gillett's) dissolved in a pail of water? Use without soap. You will find it particularly good for verandas or summer kitchens. It is easier to use; also, it gives better results. I have never found that strength harder on the hands than any other method of scrubbing.

Did any of the readers ever try using silko for darning cotton or cashmere stockings? I used to use the darning cotton, but found the hole always wore out first again. The silko never does. For children's stockings I never use anything else.

A HALDIMAND MOTHER.

Haldimand Co., Ont.

We shall be glad to use the little apron pattern when the "cuts" are made for illustration. Thank you very much.

Baby's Food.

Dear Dame Durden,—I will be pleased to tell "Quebec" how I prepared the food for our boy.

Three ounces of cream, three ounces of milk, seventeen ounces of boiled water, and one small quarter-teaspoon of soda. Let the water get quite cold before mixing with milk and cream.

Many told me that I would ruin baby's stomach by giving him soda, but he is now seventeen months, and has long since given up both bottle and soda, and so far I have seen no bad results.

Re that new house, I quite agree with Snowdrop about the pantry, but think a kitchen is much nicer with just wainscoting, and then you can either paint or paper the walls, and so have a change once in a while.

Am sorry this letter has been so long delayed, but sickness entered our home, and all thought of writing had to be put aside. We do not truly appreciate the blessing of health until we are set aside for a time, and then we realize what it means to use.

Wishing all Nookers and Dame Durden a happy and prosperous year.

HUNTINGDON,

Quebec.

Curtain Queries.

Dear Dame Durden,—Through the Ingle Nook, would you make a suggestion for covering the windows in a parlor of a farmhouse. It is a large room, with three large windows. The rug has a green ground, the paper is also a dull shade of green, and the ceiling cream.

Would white lace or colored curtains be prettier, and should they be short or long? Could you suggest a way of draping the lace curtains? If colored curtains were used, would it be necessary to use white curtains under the shades?

BUSY HOUSECLEANER.

Bruce Co., Ont.

For your room, net curtains next the glass, with inside curtains to harmonize with the color scheme of the room, would be best. If the parlor is to be used as a very formal drawing-room, you might have long curtains. If, however, it is

to be a cheery living-room in which your friends assemble for informal good times, have the curtains to the sash only. The inner ones may be of green madras; cream madras, with a touch of green; heavy cream net, braided or trimmed with linen bands put on in a pattern and button-holed on; heavy scrim, with insertion about the edge or with a stencilled border or border cut out of cretonne or chintz, buttonholed around the edge and tacked on; or they may be of casement cloth; or even of art cretonne or chintz, if the wall-paper and rugs are plainly quiet. Rajah silk is sometimes used, if one wants an especially rich effect. Lace curtains are not much in favor at present unless they are very handsome, and very handsome lace curtains mean dipping deep into one's pocketbook nowadays.

Cream or coffee-colored curtains may be used in any room. When colored ones are used, they should be of the same tone as the leading tone of the wall-paper. Occasionally, however, a touch of bright coloring in cretonne, chintz or stencilling may be introduced to liven things up a bit, the only restriction being that the contrast must be pleasing. In a room of dull green tone, for instance, old rose, old gold, or old blue, may appear in the curtains very nicely, but one must be careful to have similar touches elsewhere in the room to give an appearance of plan and symmetry.—say in the cushions and in the border of the wall-paper.

Curtains are never draped nowadays in the best houses. They are allowed to hang straight, in graceful folds, from the rods.

Economical Use of Meat.

(Continued.)

Coming to meats proper, the methods of cooking employed by an experienced teacher of cooking, are given as follows: "She says that she tries to reduce the cooking of meat to its lowest terms, and teach only three ways. The first is the application of intense heat to keep in the juices. This is suitable only for portions of clear meat where the fibres are tender (choice roasts, steaks, etc.). By the second method, the meats are put in cold water and cooked at a low temperature (soups). This is suitable for bone, gristle, and the toughest portions of the meat, which, for this purpose, should be divided into small bits. The third is a combination of these processes, and consists of searing and then stewing (simmering) the meat. This is suitable for half-way cuts, i. e., those that are neither tender nor very tough" (boils and stews).

Having grasped these three principles for a working basis, the securing of variety by different seasonings and garnishes is an easy matter;—the meat cooked just right, the rest follows.

Careful choice of cuts; perfection of cooking, according to the method which the various cuts require; careful serving at the table, so that no one will be given more than he or she really wants or needs; expedients for using up chance left-overs in an appetizing way; meat only once a day, with eggs, milk soups, cheese, beans, etc., to supply the protein at other meals;—in these rules is suggested the way by which the expense of the meats used may be lessened without really depriving the family of necessary nourishment.

If the family simply refuse to eat the fat of meat, it should be used up in other ways,—tried out and used for shortening, in addition to vegetables, etc.

Trying-out Fat.—A double boiler is best for this, as by using it the danger of burning the fat is done away with.

Clarifying Fat.—Pour boiling water over it, boil thoroughly and set away to cool. Remove the fat then in a solid cake, and scrape off any impurities. Repeat the process two or three times, if necessary.

A slight burned taste, or other flavors, may be often removed by means of potatoes. After melting the fat, put into it thick slices of raw potato, and heat gradually. When the fat ceases to bubble, and the potatoes are brown, strain the fat.

Savory Drippings, for Use with Vegetables.—When rendering, add to the pint, a small, whole onion, a few leaves of savory and thyme, a little salt and pepper. Keep covered in a cool place ready for use.

To Use Up Bones.—Rib bones with

meat on them may be roasted. Bones with very little meat, or only gristly portions, may be cracked, soaked in cold water, gradually heated, and made into soup. Odd trimmings of meat may always be used in this way, or run through a meat-grinder and made into appetizing hashes, meat-balls, etc.

Stew with Dumplings.—Put some dripping in a saucepan. When smoking hot, sear bits of meat in it until brown. Cover with boiling water, boil for five minutes, then simmer about three hours. During the last hour, add bits of carrots, turnips, potatoes, etc. Season, and thicken slightly. Mutton or beef may be used in this way; also veal, chicken and fresh pork. For the latter three, if liked, a little cream or milk thickened with flour may be added to the gravy. Serve on a platter with dumplings around, made as follows:

Two cups flour, 4 level teaspoons baking powder, $\frac{1}{2}$ cup milk, 2 teaspoons butter, pinch salt. Mix and sift the dry ingredients, work in the butter, add milk, make into small cakes, and steam 12 to 15 minutes, or drop into the stew. Chopped parsley, or a very little sage, may be added to the dumplings, if liked.

If preferred, small, light biscuits may be served around the stew, instead of dumplings.

Meat Pies.—These may be made of a rich stew, prepared as above, and covered about 20 minutes before serving with a top made either like a light biscuit dough, like pie paste, or a layer of mashed and seasoned potatoes. Bake in the oven until slightly browned. To get this effect, brush the top of the pastry with milk, or beaten yolk of egg. If potatoes are used, the top may be dotted with butter. . . . Either raw or cooked meat may be used for meat pies, and tomatoes, celery, etc., may be added to the stew part to give variety.

Meat Rolls.—Chop cold ham, chicken, or lean beef,—even a mixture of left-overs may be used—fine. Season well, and mix with savory dripping or a little butter to "shape." Make into very small rolls, about the size of a finger. Place on strips of rolled-out short dough, fold over neatly, brush with milk, and bake in a quick oven. If there is not much meat, cold mashed potatoes or boiled rice may be added to make "enough."

Meat Cakes.—Chop veal, etc., fine. Mix with one-fourth the quantity of bread crumbs soaked, a little chopped onion, and any other seasoning that is liked, salt and pepper. Mix into small, flat cakes, and fry in dripping until browned on both sides. If cooked meat is used, keep the pan covered.

With the Flowers.

Snowball Pest.

Would you kindly give treatment for a snowball tree when a little insect comes on it and causes the leaves to curl up? Wellington Co., Ont. M. H.

The insect which infests the common snowball is one of the green aphides, or plant lice. The eggs of this insect are laid upon the branches of the tree in the fall. They are black and shining, and very large for the size of the insect. These hatch quite early in the spring, as soon as the leaves begin to form. The young infest the lower side of the leaves, causing them to curl over and protect them. The best remedy is to spray thoroughly as soon as the lice first make their appearance, before the leaves begin to cover them, with some caustic solution, such as kerosene emulsion, tobacco water, or whale-oil soap. The kerosene emulsion should be made up of one quart of soft soap, or a half pound of hard soap dissolved in a gallon of boiling soft water, to which should be added two gallons of coal oil, and the whole should be thoroughly mixed by forcing it through a force pump, and before being used should be diluted with about ten times its quantity of water.

The whale-oil soap is used at the rate of one pound to seven gallons of water, and, although a little more expensive, is much more easily prepared and applied, and is not so likely to injure the foliage as the kerosene emulsion, if a thorough emulsion has not been made.

H. L. HUTT.

O. A. C., Guelph.

Ten Thousand Telephone Companies in Canada

and the United States are giving service to nearly

FIVE MILLION SUBSCRIBERS

with telephone apparatus furnished by "Independent" Manufacturers having no connection with the "Bell" interests

The first Telephones produced by the "Bell" interests (which owns and controls the Western Electric Company in the United States, and the NORTHERN ELECTRIC & MANUFACTURING COMPANY in Canada) were manufactured IN 1876.

The first telephones produced by "Independent" concerns were manufactured in 1894, eighteen years later.

Notwithstanding this start of eighteen years, during which time the "Bell" had every opportunity to perfect apparatus which would defy competition, The "Independent" Manufacturers have produced in Canada and the United States

ONE MILLION MORE TELEPHONES

than the manufacturers in the control of the "Bell" interests.

The "Independent" Manufacturers were the originators of the standard type of Farm Telephone which is furnishing universal service to the Rural Companies to-day.

We claim that every improvement in rural telephone apparatus is the direct production of the brains, energy and money of the "Independent" telephone manufacturers.

It is good business to purchase equipment from manufacturers whose individual success depends solely upon the reputation of apparatus produced in healthy competition with each other.

The "Independent" manufacturers devote their whole energies to furnishing in competition with each other, the highest grade of telephones and equipment to operating Companies—Companies which are free to go into the open market and purchase from whom they please.

The primary purpose for which the "Bell" Manufacturing Companies were originally organized was that of making telephones for the Company which created, owns and controls them.

When you purchase from an "Independent" Manufacturer you purchase from a concern whose primary purpose is, and always has been, to make telephones for you, and which depends for its existence upon its efforts to please YOU by furnishing equipment that will give YOU absolute satisfaction.

Patronize the originators of the modern type of Farm Telephones. Patronize the "Independents"

The Canadian Independent Telephone Association does not recommend the patronage of any particular manufacturer, but it will be glad to furnish the names of reliable firms not in the control of any monopoly. Firms which produce equipment of the highest grade, together with any other information relating to the organization, construction or operation of a local, municipal or rural telephone system. Before you organize or purchase, safeguard your future interests by seeking advice from the Canadian Independent Telephone Association.

Address:

**The Secretary - Treasurer, Francis Dagger,
21 RICHMOND STREET WEST, TORONTO, ONT.**

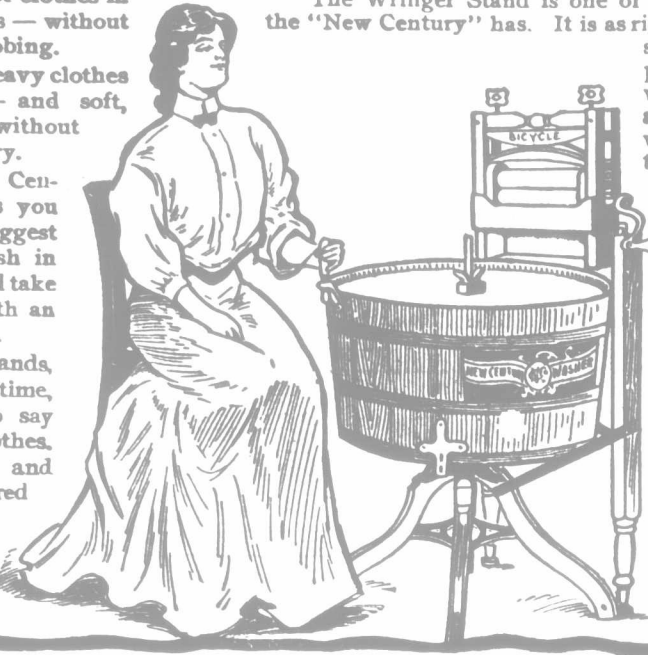
"New Century" Washing Machine

The "New Century" washes a tub of clothes in five minutes — without boiling or rubbing.

It washes heavy clothes thoroughly — and soft, thin things without the least injury.

The "New Century" enables you to do the biggest kind of a wash in an hour, that would take the whole day with an ordinary wash-tub.

It saves your hands, your back, your time, your nerves — to say nothing of the clothes. The ball bearings and powerful oil-tempered steel springs make it run so easy that a child can do the family washing.



It is the cheapest machine ever sold, for value given. The Wringer Stand is one of the many improvements the "New Century" has. It is as rigid and strong as a bar of steel—in just the right position for quick, easy wringing—the wringer is always on stand—and the water drains right into the tub.

Twenty-five years of "knowing how" are built right into every part of it.

Some people buy them because they run "so easy," others because they do such perfect work in so short a time—all of them because there is no other "just as good."

Price \$9.50 without wringer, delivered to any railroad station in Ontario or Quebec.

Write us for free booklets.

CUMMER-DOWSWELL LIMITED,
HAMILTON, Ont.

45 A

The "Farmer's Advocate" Fashions.

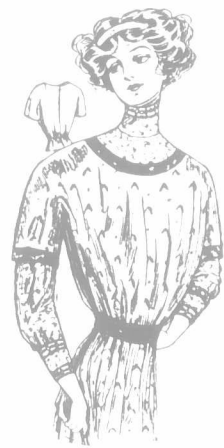


DESIGNED BY MAY MALTON.
6601 Blouse or Shirt Waist.
6596 Seven Gored Skirt



6623 Dress Tunic with Gulmpe, 32 to 42 bust.

6604 Misses' Tucked Over Blouse, 14 and 16 years.



6623 One Piece Over Blouse, 32 to 40 bust.

Order by number, giving measurement or age, as required. Price, ten cents per number. Address: Fashion Dept., "The Farmer's Advocate," London, Ont.

Kills the Bugs.
Feeds the Plant.



Pat. in Canada, U.S.A. & Eng. Jan. 15, 1914.
REG. TRADE-MARK. PREVENTS BLIGHT.

BUG DEATH Is Non-poisonous

Excellent to use on currant and gooseberry bushes, squash and cucumber vines, cabbage plants, and everything wrong in the garden.

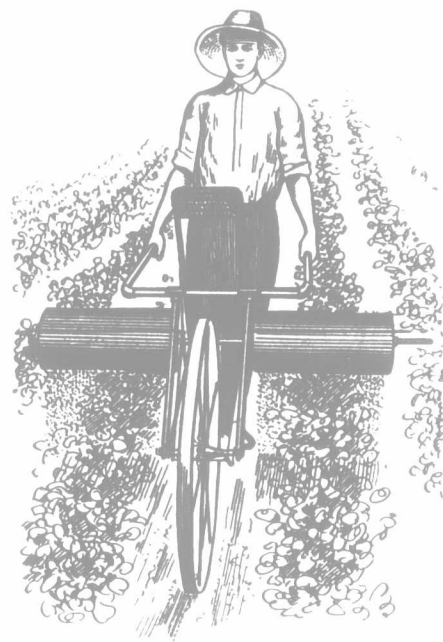
When you inquire of your dealer for BUG DEATH, see that our trade-mark is on the package.

BUG DEATH is sold in convenient packages, as follows: 1 lb., 15c., 24 pkgs. a case; 3 lbs., 35c., 12 pkgs. a case; 5 lbs., 50c., 6 pkgs. a case; 12½ lbs., \$1.00, 4 pkgs. a case; 50-lb. keg, \$3.75; 100-lb. keg, \$7.00.

Don't wait until the bugs get here, but order that keg you want to test now, if your dealer has not got it. We will ship it to your nearest station free of freight charges.

The Farnham Dust Motor will dust two rows of potato vines or strawberry plants at one time as fast as a man will walk.

Bug Death Chemical Co., Ltd., St. Stephen, New Brunswick



Trimming Cedar Hedge.

Will you kindly inform me just when is the best time to trim a cedar hedge? I have one nicely growing, and wish to keep it square and small. Have had various advices, but none authentic. Also, may I cut it back some and not kill it? C. McD.

Huron Co., Ont.

In trimming a hedge, it is best to make the shape of the hedge conform as nearly as possible to the natural habit of growth of the tree. The cedar naturally grows in a broad, pyramidal form. In trimming a cedar hedge, therefore, it would be best to trim to this form, rather than keep the sides straight up and down and squared off on top. This forcing of trees into unnatural shapes cannot be kept up indefinitely, and a hedge pruned in such a manner dies out in the lower branches much sooner than one trimmed to a more natural form. The best time for trimming a hedge is early in the spring, before growth starts. Some claim that it may be done any time throughout the season, but if done after growth has been made, the pruning removes all of the season's beautiful new growth, and the hedge has a more or less dead appearance the greater part of the season. In trimming evergreens, it must not be forgotten that they do not have dormant buds, as do the deciduous trees; consequently, in pruning, the growth should not be cut back to old wood. If a little of last year's growth is left on the end of the branch, it insures a filling out with new growth. If cut back to old wood, the hedge soon shows a lot of dead and unsightly wood.

H. L. HUTT.

O. A. C., Guelph.

PURITY FLOUR

And Its Keeping Qualities

SOME people find it necessary to buy a considerable quantity of flour at one time—sufficient to last for a long period.

Naturally they are anxious to procure a flour of the kind best adapted to lengthy storage.

There are two important reasons why PURITY FLOUR possesses these qualities. One is that it is made entirely from Manitoba Hard Wheat. The other lies in the fact that the careful milling necessary to produce "Purity" absolutely excludes all low-grade particles of the wheat berry. It's the high grade Manitoba Hard Wheat Flour that keeps—stands longest storage.

That's "Purity."

"Purity" flour may cost a little more, but is more than worth the difference. Try it. Watch results both for quality and yield.



"More Bread and better Bread"

WESTERN CANADA FLOUR MILLS CO., LIMITED
Mills at Winnipeg, Goderich, Brandon.

Please Remember to Mention "The Farmer's Advocate" When Writing

POULTRY AND EGGS

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

BLACK LANGSHANS—Have flesh like turkeys and are good layers. Eggs, \$3 a doz. Glenloch Farm, 396 Yonge St., Toronto.

BARRED ROCKS FOR SALE—Bred from New York prizewinners. My birds won at leading Canadian shows. Eggs, two, three, and five dollars per fifteen. Thos. Andrew, Pickering.

BLACK MINORCAS—S. C., pure-bred, from heavy-laying strains. Eggs in Morgan baskets, one dollar per thirteen. A few cockrels for sale. Oscar Eaman, Wales.

BARRED Rock eggs, safely packed in Morgan baskets, \$1.00 per 15. O. H. Chalmers, Smith's Falls, Ont.

BARRED and White Rock eggs, \$1 per 15; \$4 per 100. S. L. Jayne, Grafton, Ont.

BUFF Orpington eggs that hatch; nine chicks guaranteed. Four special pens, \$3 setting. Splendid utility stock, extra heavy layers, \$1 setting. Illustrated catalogue free. Hugh A. Scott, Caledonia, Ont.

BARRED ROCK EGGS—From a pen of the "National Strain." Selected for their choice barring, and persistent layers of perfect colored eggs, and mated with choice cockerels. Vigorous, blocky, barred to the skin. Price, \$1.00 per 13, or \$2.00 for 32. W. C. Shearer, Bright P.O., Ontario.

BARGAINS—Famous Pride of Ontario strain of Rose-comb Rhode Island Reds, White and Partridge Wyandottes; are prizewinners, record-breaking layers, large, strong, healthy, quick-growers. Circular free. Eggs, special bargain price only \$1.00 per 15. Quantity prices lower; guaranteed satisfaction. Pride of Ontario Poultry-yards, Collville, Ontario.

CANADA'S best Anconas. Winter layers. Very profitable. Free circulars. Tells all about Anconas and Leghorns. Edmund Carlyle Apps, Box 224, Vice-President International Ancona Club, Brantford, Ontario.

EGGS from pure Indian Runner ducks, 10c each. Single-comb Rhode Island Reds, \$1 per 15. Frank Baldwin, Glanworth, Ont.

EGGS at \$1.50 per 15, shipped in special egg baskets, from the following varieties: Rose and Single Comb White, Single-comb Black Leghorns; also Black Columbia and White Wyandottes. Mention this paper. A. & P. Readwin, 236 Paisley St., Guelph, Ontario.

EGGS from Barred Rocks, White and Silver Laced Wyandottes, S.-C. Brown Leghorns, S.-S. Hamburgs, \$1.00 per 15; from winners. Robert Houser, Canboro, Ontario.

FERTILE EGGS—White Wyandotte, \$1.50 per 30; \$4.50 per nine dozen. W. A. Bryant, Cairngorm, Ont.

R. C. BLACK MINORCAS—Northup strain. Eggs, \$2.00 per 15. T. A. Cook, Durham, Ontario.

ROUEN DUCKS—Eggs for hatching from prizewinning stock. \$1 for 7; \$2 for 15. J. H. Rutherford, Caledon East, Ont.

RHODE Island Reds, Rose-comb; bred eleven years from carefully-selected heavy winter layers of large brown eggs. Fifteen eggs, \$1.50. Satisfaction guaranteed. Jno. Luscombe, Merton, Ont.

RHODE Island Reds—Rose-comb. Best general-purpose fowl in the market. Eggs for hatching from imported heavy-laying strain. Two dollars for fifteen from number one pen, or one fifty from number two. B. Colwell, Box fifty, Cooksville, Ont.

S. C. W. LEGHORNS—Prizewinning and great laying stock. Eggs, \$1.00 per 15. A hatch guaranteed. Geo. D. Fletcher, Binkham P.O., Ontario.

SINGLE-COMB Black Minorcas—Stock and eggs for sale. Ontario winners and great layers. Satisfaction guaranteed. For particulars write: H. Dunning, Thornton, Ont.

WANTED—A few private farmers to ship me Poultry, Eggs, Dairy Butter, Syrup, and all other farm produce. Will pay highest market price. W. J. Falle, Prince Albert Ave., Westmount, Montreal.

Pleasant Valley Farm offers **WHITE WYANDOTTE EGGS** for hatching from 2 pens of grand winter layers. Large white birds. \$1.00 and \$1.50 per 15, \$4.00 and \$5.00 per 100. **G. AMOS & SONS, Moffat, Ont.**

SPRING BANK FARM Offers S.-C. Brown Leghorn eggs at \$1 per 15, \$4 per 100. Excellent layers from prizewinning strain. Satisfaction guaranteed. **Wm. Barnett & Sons, Fergus P. O., Ont.**

When Writing Mention The Advocate

The Beaver Circle.

[All children in second part and second books, will write for the Junior Beavers' Department. Those in third and fourth books, also those who have left school, or are in High School, between the ages of 11 and 15, inclusive, will write for Senior Beavers'. Kindly state book at school, or age, if you have left school, in each letter sent to the Beaver Circle.]

To-day we give you a few more of the compositions on gardening, which, though not prizewinners, are considered good enough for publication.

Gardening.

"I made it all myself," said Bertha, proudly, as she stopped beside a lovely flower-bed and looked admiringly at it. "No one helped me at all."

"Oh, how beautiful!" I exclaimed, with mingled surprise and delight. "I can never get a nice one. I've tried ever so many times."

"It depends a great deal on the soil you plant the seeds in," said she, proud of her skill in gardening. "It usually requires light, rich soil."

"What," I questioned, delighted to find Bertha so cheerful, "is the name of that tall one in the center?"

"It's a dahlia," answered Bertha. "Their bulbs look much like potatoes. We put them in the ground in the house, and when it gets warm put them out of doors. In autumn, after they have stopped blooming, we dig them up and save the bulbs."

"I wish I could make a garden like that," I said, looking wistfully at the lovely Snowball asters and bright pansies, "but I never could make one."

"You have to work the ground up very well, and a good many times," she answered. "These asters," she continued, "ought to be planted in the house in early spring, and when about an inch and a half high, put in a garden. The sweet peas have to have something to climb on. They should be planted about two inches deep in the early spring. The Canterbury bells should also be planted early. The bulbs of the gladioli look something like small onions. Wait till I show you one," and off she ran to the house, while I, left alone, took in the beauty of the garden.

There was the large pink flowering dahlia, and around it snow-white pansies. Then a circle of white, round asters, a moon-shaped patch of marigolds, and on the wire about it, trained sweet peas and climbing nasturtiums, while at various places about the edge waved the budding gladioli.

I sat gazing at it till a sudden, "Here it is!" from Bertha, made me start. It was like an onion, only red.

"Aren't those pansies beautiful?" said Bertha. "I had the Snow-queen last year, and they came up again this spring. I didn't know they'd last over winter. They were nearly four inches high. They should occupy a cool, shady place, and have plenty of water. Oh, I forgot to say that it is better to pick the sweet peas often, and the gladioli are something like dahlias. No, not the flowers, but the way they are taken care of."

"I'll try to benefit by your counsel," I said, when she paused. She laughed. "I hope you do," she said. Now I am as proud of my garden as she was of hers.

MARJORIE MacLEAN.

(Age 11, Senior III. Class.)

Mayfair.

About the Bird.

Dear Puck and Beavers,—In a recent issue of this paper, I saw a description of a bird, given by one of the Beavers. On consulting my bird-books, I find that the white-breasted nuthatch corresponds almost exactly with the description given. Now, I am going to suggest something. My suggestion is that a natural-history club be formed in connection with this circle. Boys and girls living on farms have ample opportunity to study birds, insects and flowers. All that is needed is a magnifying glass, a notebook, and, if possible, a camera. I am especially interested in birds. When a new kind of bird is seen, note: (1) Length (approximately). (2) Any bright colors or patches. (3) Shape and length of bill. (4) Notes on song. (5) Place it lives near the ground, or high

up. (6) Are its motions quick or slow. (7) Where was it seen, in woods, swamp, or pasture.

I think that two pages of this paper would not be too much to devote to the study of natural history. I would also suggest that each Beaver interested in the subject subscribe twenty-five cents or less, each year, as he or she thinks fit. It would cover the cost of the extra space taken up, and also of obtaining diagrams, colored plates, etc.

So, after this, observe the life around you, and write to the Circle, telling your observations, instead of a dozen or more lines saying that you have a pet dog or cat that you think very much of, etc.

Now, Puck, I will close, asking your opinion of the proposition.

ONTARIO BOY (16).

I think your idea of a natural-history club splendid,—only that, you see, the other departments will not allow us two pages. However, we can do our best to afford room for nature letters. And, now, what about this suggestion?—Instead of sending us the 25 cents, could not each locality of boys and girls form a local club of its own, collect the money, and buy nature books with it. Fine ones can be had, on different subjects, from \$1.50 (some fairly good ones at even less) up to \$3. These books may be ordered through me, and will be sent you at regular retail price, no matter who the publishers may be. I shall be only too glad to select and procure you books if you care to have me do so.

PUCK.

Our Junior Beavers.

Several of our Junior Beavers wrote on the wrong subject. The subject set for them was, "What I Love Most to Play With," and following are the prize compositions. We could not give prizes to those who made a mistake, too, because that would be helping on carelessness—wouldn't it?—but we are going to publish some of the best letters on gardening.

Prize Composition.

This is my second letter to you. I am ten years old, and in the Second Book.

I saw your competition in the paper and I thought I would write again. A story of what I love to play with the most.

I think a cat is a very nice pet to play with, for you can dress it up and get it to play with a string, or a button, or a spool. I have four cats; their names are Snowball, Whittle, Pussy, Katie. Three are white, and Pussy is gray.

I take much pleasure in dressing them up. Sometimes I take ribbons and put them on their paws and neck. I generally play with my little gray puss, or sometimes Snowball, and I often take turns in playing with them all. They go to sleep, like a baby if I pet them enough, and I always try to have a nice nest, and if they do not like their nest they will not keep still.

Sometimes I play tricks with them. I put a handkerchief over their eyes, and it is comical to see them perform, and I often rock them to sleep.

I always find when they do not wish to play any more, they meow, and I let them go.

Well, I will stop, wishing the Circle every success.

BEATRICE ANNETT (Book II).

Cairo, Ont.

Prize Composition.

Dear Puck,—This is the first time I have written to the Beaver Circle, but I thought I would like to try for a prize in the competition, "What I Most Love to Play With." I am eight years of age, and am in the Part II. Class.

Among all my playthings, the one I love best is my doll. I call her Rose. Her eyes are blue, and she has golden hair. She looks exactly like a little baby. I have many clothes and dresses for it, and it is great fun to make the clothes for it and dress it up. I have a little doll's bed, and my little sister and I play keeping house. We put the doll to sleep, and lay it in its bed, then, of course, we have to make up the bed again. Sometimes we have tea-parties, and I take my little set of dishes, set the table, and pretend my doll is a person. I have had my doll about a month

METALLIC CEILINGS

are everything that plaster, wood and wall paper are not.

Metallic Ceilings are fire-proof, absolutely.

Metallic Ceilings don't crack or crumble—don't get damp or mouldy—don't need repairs.

Metallic Ceilings are far-and-away the most economical building material you can put in a house. You don't believe it? We can prove it. Write us for the facts.

The Metallic Roofing Co. Limited
MANUFACTURERS,
TORONTO AND WINNIPEG.
4201 (50)



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.

AGENTS WANTED in all localities for the new "Parkyts Sanitary Closet." Latest invention in sanitation for Private Residences, Schools and Hotels. Liberal commissions. Address: H. M. Suckling & Co., 408 St. Nicholas Bldg., Montreal, Que.

FOR SALE—New Woven Wire Fencing, all sizes and lengths, at half price. Write quick to Imperial Waste & Metal Co., 7 Queen St., Montreal.

GASOLINE ENGINES—1½ horse-power, \$65 complete; 2½, 4, 6, 8, 12 horse-power, at proportionate prices. Pumping and Sawing Outfits. Get our Catalogue. Bates Motors, Petrolia, Ontario.

GOVERNMENT STANDARD SEEDS—Golden Vine Peas, \$1.00; Southern White Corn, \$1.00; Northern Leaming Fodder Corn, \$1.00; bags, 25c. each extra. Sir Walter Raleigh, Green Mountain, Empire State Potatoes, 75c. bag; bags included. Caledonia Milling Co., Caledonia, Ontario.

10,000 CEDAR FENCE POSTS for sale. Write for quotations on car lots. Finlay & Anderson, Tory Hill, Ont.

WE HAVE FARMS

of all sizes and suitable for all kinds of farming in every county in Western Ontario. Send for our catalogue. **The Western Real-estate Exchange, Ltd.**, 78 Dundas St., London Ont.

HIGHLY-BRED GLYDESDALES

FOR SALE Always on hand, stallions, colts, mares and fillies. The champion stallion, "Baron Howes" (13847), was purchased from this stud. Apply: **JOHN R. BEATTIE, Baurch Farm, Annon, Scotland.**

MUSKRATS.

On account of the increasing scarcity of fur-bearing animals, considerable interest is being manifested in the muskrat. Both the fur and the meat are staple articles in some of the markets of the East and Middle West during the winter months. The furs are used largely by fur-dressers and dyers, and are made to closely imitate the more costly furs, thus creating a continuous demand for the pelts.

Owners of marsh lands have already made the trapping of muskrats profitable, converting otherwise useless lands into income-producing investments. Many lease the trapping privilege to those who make a business of trapping.

United States Farmers' Bulletin No. 396, "The Muskrat," gives a description of its general habits, methods of trapping, and the value of its fur and flesh.

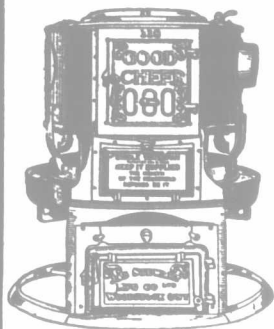


SCIENTISTS tell us man originally lived in the water. Be that as it may, health still demands a plentiful supply of moisture in the air we breathe as well as in the food we eat. The commonest cause of colds, sore throats, pneumonia and similar troubles in winter is the over-dry, over-heated atmosphere of so many furnace-heated houses.

Of course the average Furnace gives off heat—that's what it is for—but it's a dry, parching, snuffing heat that cracks your skin and affects your lungs and throat and makes you feel "chilly" in spite of an overheated house.

It is *moisture* that is wanting in the air—real natural humidity of the outside atmosphere—and the ordinary Furnace is not built to provide this moisture.

The Solution is the "Circle Water Pan" OF THE "Good Cheer" Furnace



A good big water pan—not a mere makeshift—placed where the water can be best evaporated, evenly distributed, breathing refreshment and "Good Cheer" air over the whole house.

The "Good Cheer" Furnace gives a natural, humid heat—an atmosphere which is perfectly comfortable at 68°, and as healthy as it is comfortable. Write for full information and the name of the nearest dealer to

THE JAMES STEWART MFG. CO., LIMITED, 1A WOODSTOCK, Ont. - WINNIPEG, Man.

and I would not have it broken for anything.

I will now close, hoping to be successful in my first attempt at winning a prize.

ILA SMITH.
(Age 8, Part II, Class.)
Rutherford, Ont.

A Very Good Little Letter.

Dear Puck,—My garden was not a very large one, but I had quite a lot of things in it. First I planted sweet peas. I dug a little trench about six inches deep. In this I placed the peas one inch apart, and I covered lightly. As they grew, I hoed in the earth about them, and made a trellis for them to climb on by hammering in two posts, one at each end of row, then nailed a cross stick on top, from one post to the other, and then stretching cord backward and forward around the posts. I also had a small bed of petunias. Next I got some strawberry plants from my mother, and planted these 2½ feet apart. They soon grew into nice healthy plants. But I had no fruit, as my brother said I must pick the blossoms off the first year. I am hoping for a big crop of fruit this year. Next I planted a bed of onions. These I planted four inches apart; and then a bed of lettuce and radish. I had plenty of lettuce for the family all summer. Mamma cuts off the leaves, and it grows right up again from the root. I did all the weeding and hoeing myself.

DOROTHY NEWTON.
(Age 9, Second Book.)
Cloverdale Farm, Plaisance, Que.

Another.

Dear Puck,—I will tell you about my garden. First I dug it, then I raked it and planted radishes, potatoes, cucumbers, onions, pumpkins, cabbage, carrots, parsley and parsnips. I planted these in May, and they were up in June, and ready to be picked in July.

Next I planted flowers: violets, asters, lilies, sweet peas, roses and tulips. I watered them well, and they all came up well. The violets were first up and they were all closed in. I got them in the woods. The sweet peas were up next, and they

had a nice perfume. The geraniums were up next, and they had pink blossoms.

ETHEL REDMAN (Book II).
Brampton, Ont.

GOSSIP.

Dr. Duncan McEachran, V. S., of Orms-town, Que., who makes a specialty of importing Clydesdales, announces that a special importation will be made for breeders at minimum cost, to those entrusting him with commissions. His next importation will arrive about the first of June.

SALE DATES CLAIMED.

June 7th.—At Guelph, Harry Smith and others; Shorthorns.
June 8th.—E. Jeffs & Son, Bond Head, Ont.; Shorthorns.
June 15th.—R. H. Reid & Sons, Pine River, Ont.; Shorthorns.

A BIG Calf.

Henry Edwards, Beachville, Ont., writes: Once again Oxford County is to the front. On April 26th, one of my grade Ayrshire cows gave birth to a bull calf which weighed 116 pounds at birth. Can anyone tell me of a larger newborn calf? The cow is not over average size. She was bred to a pure-bred Holstein bull, and the big calf is black and white. I am raising it for veal. The cow is doing nicely now.

LARGE IMPORTATIONS OF CLYDES-DALES.

Ninety head of Clydesdales for Canada left the Glasgow docks on April 16th, consigned to John Clark, Crawford, Alta., (23); John Vance, Tavistock, Ont., (18); John Graham, Carberry, Man., (15); Joseph D. Eddie, Vars, Ont., (7); A. H. Thomson, St. John, N. B., (7); Oscar Philipp, Winnipeg, Man., (5); S. E. Kidd, Barret's Rapids, Ont., (3); R. R. Meckeraeher, Winnipeg, (5); G. G. Stewart, Howick, Que., (2); The Duncan Co., Montreal, (2); Andrew Scharf, Cum-nung's Bridge, (2); Mr. Todd, Winnipeg, (1). Besides these, there were nine head consigned to Mr. Clark, of Dakota.

GOSSIP.

Official records of 157 Holstein-Friesian cows were accepted by the American Holstein Association from April 13th to April 19th, 1910. This herd of 157 animals, of which over one-half were heifers with first or second calves, produced in seven consecutive days, 61,685.2 lbs. of milk, containing 2,201,444 lbs. of butter-fat, thus showing an average of 3.57 per cent. fat. The average production for each animal was 392.9 lbs. milk, containing 14,022 lbs. of butter-fat, equivalent to 56.1 lbs. or 27 quarts of milk per day, and over 16½ lbs. of the best commercial butter per week.

Preparations for the Liverpool Show of the Royal Agricultural Society are in full swing, and already more applications for space have been received than for last year's show. The local fund for special prizes and other expenses has reached £5,400. The Prince and Princess of Wales are to be the guests of the City of Liverpool during the show. If the weather will only prove favorable, the Liverpool authorities are expecting to eclipse even the Newcastle record. York and Doncaster were rival claimants for the show of 1912—the committee has decided in favor of Doncaster.—F. Dew-hirst.

AYRSHIRES AT AYR SHOW.

At the 75th annual show of the Ayrshire Agricultural Society, held at Ayr April 26-27, the display of Ayrshire cattle was better than for many years past. In the Derby class of three-year-old heifers in milk, between fifty and sixty entries put in an appearance. The first place in this class was taken by Alex. Hunter's Tulip, a thick-bodied, substantial heifer, by Foulton Duke, and with a good udder and fairly good fore teats, but too small hind dugs. John Murray had the second in Carston Snow-drift, a quality heifer, a little scarce of substance, but carrying a well-balanced udder and splendid teats all round. Third prize went to T. W. & R. Lindsay's Lady Rose, with a large commercial udder and good teats.

In the aged milk cow class, a dozen useful cows were forward, James Lawrie's Soussie being placed first, and John Drennan's Queen of Hillhouse second, the third place being given to Robt. Wilson's entry.

In the aged cow in calf class, John Murray won with Lady Mary Stewart, due to calve in July. In the three-year-old in milk class, the placing was a repetition of the Derby awards. Three-year-olds in calf were a strong class, and here Lt.-Col. G. J. Ferguson-Buchanan had a comfortable win with Adela, by Sir Douglas, John Brennan being second with Hillhouse Stately, by Squire. In the class for cow in calf or milk, three years and upwards, with authenticated records of natural milk, John Drennan led with Queen, which has a yield of 750 gallons at 4 per cent. butter-fat.

In the Sweepstakes class for cows in milk or in calf, John McAlister had an easy win with Lady Mary Stewart, James Lawrie being second with Soussie, and Mr. Hunter third with Tulip.

In aged bulls, Hugh Allan's Peter Pan was first, Homer Young's Special License second, and Messrs. Wilson's Baron's Best third. Two-year-olds were a strong class, Robert Osborne being first with Morton Mains Sensier, sold for exportation. John Howie had second with Sir William.

Yearlings were a great class, Michael Logan's Full Bloom taking first place. This is a big dark-red and white bull, with wide quarters, deep flanks, and some gaiety in front. Robt. Osborne was second with Morton Mains Arbut, by Bitter Scotch, and John Cochrane third with Caruso. The Challenge Cup was won by Mr. Allan with Peter Pan, and first reserve was Mr. Logan's first-prize yearling, Full Bloom. Single yield queys were of outstanding quality, and were led by James Howie's Creampot, the Kilmarnock female champion, while Robert Osborne's Zingarine, by Peter Pan, was second. Yearling heifers were a magnificent class. Thos. Barr had the honor of taking first and second places with home-bred heifers, third going to Mr. Osborne for the second winner at Kilmarnock.

THE SPICE OF LIFE.

Chief Justice Taney, driving through the Tennessee mountains, once broke one of the shafts of his buggy. A small colored boy came riding by on a mule. The justice hailed him, "Here, my boy," he said, "can you help me fix my buggy?" "Sure, boss," answered the boy, and cutting a hickory withe, he soon fixed the shaft so that it was quite serviceable. "Well, well," said the learned judge, "now why couldn't I have done that?" "I dunno, boss," replied his "first aid," "unless some folks knows more than others."

IN 2010.

"My love," mentioned Mr. Sufferer-Gotte, "I wonder—I wonder whether you would let me have the use of my latch-key this week?"

"Latch-key!" bellowed his wife. "What the dickens do you want with a latch-key, my good man?"

"Well, my love," coughed Mr. Sufferer-Gotte, "we are holding a series of fathers' foregatherings at the club this week, when we hope to do a little needlework on behalf of the poor. Miss Nancy has kindly consented to come and talk to us about her recent Farthest North trip and—"

"Great heavens!" roared the irate wife, banging her pipe upon the table to emphasize her words. "Don't you know your duty is at home? Besides, on Monday I've got to attend the Women's Emancipation League; Tuesday, the Sisters of Charity meeting; Wednesday, the local policewomen's concert; Thursday, the Daughters of Toil lecture; Friday, the Women's Science Research class, and on Saturday our football club's smoker. Now, don't you forget. Your duty is at home!"

FARMING IS SO EASY.

A Jackson County farmer, serving on the jury recently, stood in the hallway of the Criminal Court building stretching and yawning, and complaining about not getting enough exercise out on the farm.

"You fellows around the city do a lot of walking and shifting about," the farmer commented to a city man.

"When I was on the farm plowing and cultivating the soil, I had no complaint to make about not getting enough exercise," was the suggestive comment of the city man.

"You lived away back there at a time when a man followed the plow and lifted it around at the end of the furrows, after having carried it to the field on his back, and such things," the farmer explained. "We ride and plow these days, you know. Most everything else is done by machinery. Why, we have to construct a gymnasium on the farm to get a little exercise when we get up in the mornings, and before we go to bed at night."

Then he stretched and yawned again, while the city man kicked himself—metaphorically—for having to work so hard.

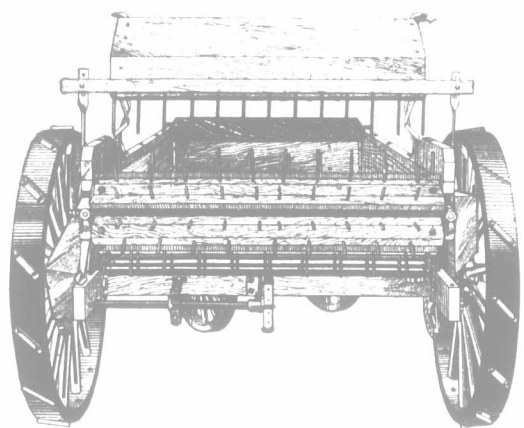
John A. Cowan, of Toronto, was travelling from Buffalo to New York, and was seated in the smoking end of a Pullman enjoying a weed before turning into his berth, when he became interested in the conversation of three fellow-travelers.

They represented different business houses, and were telling each other how much the annual turnover of their houses amounted to, and how small the percentage of bad debts. As they represented pretty solid firms, they agreed that it would be difficult to find three houses in the country doing an equal amount of business on so small a percentage of loss.

"Excuse me, gentlemen," said Mr. Cowan. "I am from Canada, and from what you have been saying I fancy that we may do things a little better over there than you do here. At least I can say so, speaking from my own experience. Now, I have been connected with a business in Toronto for thirty years, and we have a turnover of \$10,000,000 per year, yet in thirty years we have not had one dollar's worth of bad debts."

The three men stared at him. "What business are you in?" asked one of the men.

"I'm in the Customs," said Mr. Cowan. The New Yorker promptly rang for the Senegambian, and asked all in the party to mention what they would have.



THE SPIRAL BEATER ON THE
Massey-Harris
MANURE SPREADER
INSURES EVEN SPREADING.

Teeth are arranged spirally, thus working the manure evenly over the entire width. Beater has positive drive and runs in

SELF-ALIGNING BEARINGS.

Safety board keeps the manure away from the beater until it is in motion—prevents uneven spreading of first of the load. Follow board is concave, so as to bring last of load to the beater. The result is

UNIFORM SPREADING FROM START TO FINISH.

This means increased crops, for **All** the manure is available as plant food, and spreading is accomplished with much less labor than if done by hand.

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THE PAINT MAKERS, Montreal, Est'd 1842.

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MAKES MONEY GROW

In the savings bank, because it makes profit out of waste. Makes a market for fruits and vegetables that you've been losing every year. Makes your kitchen or store a canning factory. Easily worked, easily cleaned. Product the best. Three sizes: \$30, \$50, \$90; capacities: 100, 200, 300 tins an hour. Write for booklet No. 4C, Free, postpaid. A postal will do.

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CANADIAN BRANCH: ST. JACOB'S, ONTARIO.



SAVES
\$ \$

Imported Clydesdales

My new importation of Clydesdale stallions for 1910 have arrived. They were selected to comply with the Canadian standard, combining size, style, quality and faultless underpinning with Scotland's richest blood. They will be priced right, and on terms to suit. C. W. BARBER, GATINEAU PT., QUEBEC.

QUESTIONS AND ANSWERS.
Miscellaneous.

RECKONING TIME.

If a man starts work on a farm on the 6th of April, will he have to work up till the 6th of May for a month, or what is a lawful month's work on a farm?

J. E. V.

Ans.—The time runs from date to date. That is, if a man commences work on April 6th, his month expires on the evening of May 5th, unless there has been express agreement otherwise.

STAVE SILO.

I intend to build a silo, but as there are none in this vicinity, I have no guide only what information I can ascertain from other sources. I am thinking of building a stave silo.

1. Have a good place for foundation. How deep would you go, and how would you build foundation, silo to be all above ground? Size of silo intended to be twelve feet in diameter by thirty feet.
2. Would you consider this too large a diameter for a herd of ten to twelve cows, four yearlings, and from four to six calves? Would build foundation a little larger than twelve feet in diameter.
3. How many hoops would you put on such a height, and of what thickness and width of iron?
4. Where ends of staves meet, would you put the second row directly over the ones below, or would you break the joints?
5. How would you fasten silo to foundation?
6. In regard to windows, would you put them in when putting up staves, or would you cut after silo is built?

YOUNG FARMER.

Lennox and Addington Co., Ont.

Ans.—1. A cement concrete wall to a depth of 18 inches or two feet in the ground, and the top of which is slightly higher than the surface of the ground and a little larger than the silo, would answer. Many builders, in addition, cover the whole surface of silo bottom, made basin-shaped, with a few inches of cement. Some also leave a drainage hole at center, from which excess of liquid is drawn off. This is advisable in case of cement silos.

2. It would be just about the right size. While if full of settled silage it would contain a great deal more feed than required by your present stock, still, if plenty large, it saves the necessity of refilling, and provides for a probable increase in amount of stock kept.

3. Round hoops of 2-inch iron are commonly used, each hoop being in two or three sections and joined together by ends passing through metal or wooden clips, and nuts screwed on. Posts, full height, are sometimes used in place of clips. Hoops should be not more than eighteen inches or two feet apart at the lower part, the distance between gradually widening to 34 feet at the top of silo.

4. In a 30-ft. stave silo, planks of two different lengths are used, say 14 and 16 feet. In the one stave a 14-ft. plank is set up on the foundation, and when finished a 16-ft. plank stands on end directly above it. The next stave would have a 16-ft. plank below and a 14-ft. one above, and so on; a 16-ft. plank alternating with a 14-ft. plank in the bottom tier, and also in the tier above.

5. Stave silos sometimes need to be guyed to keep them from being blown over, but are not fastened to the foundation.

6. Doors, at different heights, for throwing out silage, are not cut out until silo is built, but bevelled saw-cuts are started at the top and bottom of each door in the proper plan's, or plan's, while building progresses, to allow for the saw being passed through and cutting out finished later. It would be advisable to write J. H. Grisdale, Agriculturist, Central Experimental Farm, Ottawa, for bulletin on the stave silo.

Freshman: "Hello, Bro. Heard the latest about Jenkins?"

Junior: "No. What is it?"

Freshman: "He's had a brain wreck."

Junior: "How did that happen?"

Freshman: "A train of thought passed through his head."

Warranted to Give Satisfaction.
Gombault's
Caustic Balsam

Has Imitators But No Competitors.
A Safe, Speedy and Positive Cure for Curb, Splint, Sweeney, Capped Hock, Strained Tendons, Founder, Wind Puffs, and all lameness from Spavin, Ringbone and other bony tumors. Cures all skin diseases or Parasites, Thrush, Diphtheria. Removes all Bunches from Horses or Cattle.

As a Human Remedy for Rheumatism, Sprains, Sore Throat, etc., it is invaluable. Every bottle of Caustic Balsam sold is warranted to give entire action. Price \$1.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use. Send for descriptive circulars, testimonials, etc. Address: **The Lawrence-Williams Co., Toronto, Ont.**

"SAVE THE HORSE" SPAVIN CURE

REG. TRADE MARK

The most perfect and superior remedy or method known, with greater power to penetrate, absorb and cure than anything discovered in veterinary medical science or practice. Besides being the most humane, "Save-the-Horse" is the most unfailing of all known methods. It is effective without fevering up the leg, making a blister, or leaving a particle of after effect.

Armstrong, Mo.—Enclosed \$5. Please send me bottle of "Save-the-Horse." I used your medicine on three different cases with the results hoped for. I gladly recommend it. Ship at once and oblige. Yours truly, **GEORGE W. LENOIR, Route 2, Alton, B. C.**—Last year, with one-half bottle only of "Save-the-Horse" Spavin Cure, a customer of mine treated a sprained tendon of four years' standing—the horse had practically become useless. Many other remedies had been applied without results. "Save-the-Horse" effected a complete cure.

Yours truly, **C. R. BOURNE, Drugs and Stationery,** a bottle, with signed guarantee or contract. Send for \$5.00 copy, booklet and letters from business men and trainers on every kind of case. Permanently cures Spavin, Thoroughpin, Ringbone (except low), Curb, Splint, Capped Hock, Windpuff, Shoe Bolt, Injured Tendons & all Lameness. No scar or loss of hair. Horse works as usual. Dealers or Exp. paid. **TROY CHEMICAL CO., 148 Van Horn St., Toronto, Ont., and Binghamton N. Y.**

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MOON BLINDNESS and all Diseases of the Eye successfully treated with this **NEW REMEDY.**
Money Back if it fails to cure. \$2.00 per bottle postpaid on receipt of price, **Visio Remedy Ass'n., Dept. B, 1933 Wabash Av., Chicago, Ill.**

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Export pedigree live stock of every description. Owing to rapid increase in business, Mr. L. C. Scruby has been taken into partnership. During the spring months the export of horses will be a specialty. We are at this business all the year round, and can do better for you than you can do for yourself, even if you do come over to do your own business. Send us your orders, and we will do the best we can for you. Nobody can do more.

NOTICE TO HORSE IMPORTERS
Gerald Powell, Commission Agent and Interpreter, Nogent Le Rotrou, France, will meet importers at any port in France or Belgium and assist them to buy Percherons, Belgians, French Coach horses. All information about shipping, banking and pedigrees. Many years' experience; best references; correspondence solicited.

Peachblow Clydesdales and Ayrshires!
CLYDES—2 four-year registered stallions, one imported, AYRSHIRES—3 very choice bull calves, all registered. All good colors, and from good milking dams. Prices right.
R. T. BROWNLEE, HEMMINGFORD, QUE.

For Sale: REGISTERED HACKNEY STALLION, COCK ROBIN.
Three years old; 15½ hands; chestnut; hind feet white. Sire Commodore 3rd, imp., (6695), by Chocolate Jr. (4185). Dam Ada Adair (181), by Robin Adair 2nd, imp., (3907). For description, terms, etc., address: **G. W. CLEMONS, ST. GEORGE, ONT.**

Imported Clydesdales Imported and Canadian-bred Clydesdale mares and fillies and young stallions, of most fashionable breeding, up to a big size, with character and quality. Among them are 4 mares in foal. Phone connection. **Alex. F. McEwen, St. Thomas, Ont.**

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Peerless Farm and Ornamental Gates

We build Peerless Gates to last a lifetime—handy, convenient and attractive. They remain staunch and rigid through all kinds of rough usage. The frame is

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20 Imp. Percheron Stallions 20

Our 1909 importation of 20 Percheron stallions, from 1 to 5 years of age, are now in our stables. Up to over a ton in weight. Big, stylish, choke-full of flashy quality, and faultless movers. Prizewinners among them. The best lot ever imported to Canada. All are for sale on terms to suit.

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MY NEW IMPORTATION OF

Clydesdale Stallions and Fillies



are now in my stables at Markham, Ont., and, as usual, I have a big range for selection, of a type, breeding and quality seldom equalled, never excelled, by any previous importation. Call and see them. Phone connection. **T. H. HASSARD, Markham, Ont.**

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One imported Clyde stallion, a ton in weight; smooth and full of quality all over. A sire of prize stock. Also two imported Hackney stallions—show horses, one of them second at Toronto.

For further particulars write:



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The services of any one of the following high-class stallions can be secured for approved mares by applying to the manager: **Mograzia**, Champion Standard-bred stallion; **Bingen Pilot**, by Bingen, 2.06 $\frac{1}{4}$; **Jim Tod**, by Tod 2.14 $\frac{1}{4}$, also sire of Kentucky Tod; **Crayke Mikado**, Hackney stallion, Champion at Chicago International, and the Canadian National, Toronto; **Baron Howes**, Champion Clydesdale stallion, considered by expert judges to be the best Clydesdale stallion in America. For all particulars, apply to

JAS. WETHERILL, Manager, Galt, Ont.

CLYDESDALES and HACKNEYS

We have for sale a few choice Clydesdale mares, imported and Canadian-bred; also some Canadian-bred Clydesdale stallions. Hackney stallions and mares for sale always. Long-distance phone. **Hodgkinson & Tisdale, Beaverton, Ont.** G. T. R. and C. N. R.



IMPORTED CLYDESDALE FILLIES

I have still on hand six Clydesdale fillies. They are big, smooth fillies, exceptionally well bred, and their underpinning is the kind Canadians like. I have only one stallion left, a right good one. My prices are as low as any man's in the business. Phone connection. **GEORGE STEWART, HOWICK, QUEBEC.**

IMPORTED CLYDESDALES AND HACKNEYS

In my stables at Ingersoll, Ont., I have always on hand Clydesdale stallions and fillies, and Hackney stallions, personally selected in Scotland for their high-class type, quality and breeding. Let me know your wants. **W. E. BUTLER, INGERSOLL, ONT.**

WAVERLY CLYDESDALES AND HACKNEYS

My 1910 importation of Clydesdale stallions and fillies, and Hackney stallions and fillies, are now in my barns. One and two-year-old Clyde fillies of a character and quality never before excelled. My Hackney stud was never so strong in high-class animals. All are for sale and prices right. **ROBT. BEITH, BOWMANVILLE, ONT.**

Ormsby Grange Stock Farm, Ormstown, P. Quebec.

Importation and breeding of high-class Clydesdales a specialty. Special importations will be made for breeders at minimum cost. My next importation will arrive about June 1st. **Duncan McEachran.**

CLYDESDALES AND HACKNEYS

We have still for sale several good Clydesdale Stallions; also our prizewinning Hackney Stallion, Blanch Surprise, and a few good Clydesdale and Hackney Mares. All of which will be sold on reasonable terms. Phone connection. **JOHN A. BOAG & SON, Bayview Farm, Queensville, Ont.**

CLYDESDALES, Imported and Canadian-bred.

I have on hand 2 Imported Clydesdale Stallions, one 4, the other 5 yrs. old; 2 Canadian-bred Clydesdale Stallions, one 2, the other 3 yrs. old; one French Coach Stallion, 4 yrs. old; one Shire Stallion, and the noted Hackney Stallion, Chocolate Jr. I will sell these horses cheap for quick sale. **T. D. Elliott, Bolton, Ont.**

SMITH & RICHARDSON'S CLYDESDALES.

Black Ivory, Commodore, Royal Gretna, Pride of Newmills, Dunure Acknowledgment, Dunure Souter, Captain Vasey, Look Again, Baron Acme, and some younger ones, all sold, but a few good ones left yet, and at moderate prices. **SMITH & RICHARDSON, COLUMBUS, ONT.** Myrtle, C. P. R.; Brooklyn, G. T. R. Phone.

QUESTIONS AND ANSWERS.

Miscellaneous.

MIXED HARD AND SOFT WATER.

We have a well drilled in rock with first-class hard water, pumped into tank by windmill; also rain water from iron roof runs into the same tank. Is this mixed water injurious to stock?

J. M.

Ans.—Water mixed as described should not be injured in any way, but, rather, be benefited thereby.

A LEGAL HOLIDAY.

Is a hired man, working on a farm by the year, entitled to a holiday on Easter Monday? If he is, can a day's portion of his wages be deducted from his pay, if he (the hired man) has a holiday on Easter Monday? There is nothing mentioned in the agreement between the farmer and the hired man about holidays. The hired man simply agrees to work for the farmer for a year for a certain figure.

J. S. M.

Ans.—The man is legally entitled to take Easter Monday as a holiday without forfeiting his right to the full stipulated monthly or yearly wages.

DISLOCATION OF PATELLA.

1. What is the best treatment for a stalled horse?
2. Does a horse ever become as strong as before injured?

SUBSCRIBER.

Ans.—1. The horse that has been stilled ought to be kept quiet in a box stall, rather than tied. Blistering on the front and inside of joint repeatedly is the proper treatment. Use two drams each of biniodide of mercury and cantharides, mixed with two ounces of vasoline. Clip off the hair and rub the blister well in. Tie so he cannot bite the part. In 24 hours, rub well again with the blister, and, after another 24 hours, apply sweet oil and turn loose. Oil every day. Repeat this treatment every month for four or five months.

2. Whether a horse will ever become as strong again, will depend on the severity of the case, and the length of time the trouble lasted.

DRY ROT AND SEED POTATOES.

Last fall's potatoes, which were a great crop, and seemingly clean and nice, seem to be spoiling, or, at least, have black streaks through them from the stem end. They are sold enough, and all right until you cut them. Would you consider it advisable to plant such potatoes, or would it be caused by a blight? Would this year's crop be the same?

J. A. J.

Ans.—It would not be wise to plant the potatoes. From your description of this disease, I am inclined to think that it is what we know as the dry rot of potatoes, or the Fusarium disease, as it is sometimes called. On the tubers this shows first at the stem end, and inside, a short distance from the skin, there is a ring of a black or dark color; when the potato is cut crosswise, this ring is quite conspicuous. Sometimes the stem end of a potato is somewhat shrunken and wrinkled. I should advise you to get your seed from fields where there had been none of this disease at all, and, if possible, to plant on fresh soil next year, leaving the previous year's soil free from potatoes for two or three years.

L. CAESAR.

GOSSIP.

In placing mares in the breeding ranks fairly late in life, there must always at first be some uncertainty as to whether they will breed successfully. Especially is this true of mares coming out of city stables, where they have spent their best years, as they are liable to prove barren but a long turnout at grass, which means a return to more or less of a state of nature, is usually found to be a most effective remedy for the temporary barrenness with which such mares are so frequently afflicted when they are first brought on a farm with a view to breeding from them. And once such oldish mares have successfully been got in foal, they generally breed abundantly enough in future years. (Horse World.)

Kendall's Spavin Cure



The cure that saves horsemen and farmers millions of dollars every year.

It is known the world over as the one certain, reliable remedy for Spavin, Curb, Splint, Ringbone, Bony Growths and any Lameness.

Cases just developing and old, stubborn sores and swellings readily yield to the wonderful curative powers of this famous remedy.

Orangeville, Ont., Dec. 21, '08

"We had a horse which was getting very lame on account of a Spavin. I was anxious about him as we could not work the beast when we most needed him.

Our teamster saw Kendall's Spavin Cure in the store and tried it.

I am pleased to say he had success as the horse has stopped limping and is doing his day's work."

W. A. NICHOLSON.

Don't worry about Spavins, Growths, Swellings or Lameness, but use Kendall's Spavin Cure. It cures every time. The world's best liniment for man and beast. \$1. a bottle—6 for \$5. Get our book "A Treatise On The Horse," free at dealers or from us.

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Enosburg Falls, Vt. 52

Bog Spavin

Cure the lameness and remove the bunch without scarring the horse—have the part looking just as it did before the bluish came.

Fleming's Spavin Cure (Liquid) is a special remedy for soft and semi-solid bluish—Bog Spavin, Thoroughpin, Splint, Curb, Capped Hoof, etc. It is neither a liniment nor a simple blister, but a remedy unlike any other—doesn't irritate and can't be initiated. Easy to use, only a little required, and your money back if it ever fails.

Fleming's Vest-Pocket Veterinary Adviser

describes and illustrates all kinds of bluish and gives you the information you ought to have before ordering or buying any kind of a remedy. Mailed free if you write.

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Artificial MARE IMPREGNATORS

We GUARANTEE you can get from 2 to 6 mares in foal from one service of stallion or jack. Increase the profits from your breeding stables by using these Impregnators. No experience necessary to use them successfully. Prices \$3.00 to \$5.00 each prepaid.

Popular **SAFETY IMPREGNATING OUTFIT**, especially recommended for impregnating so-called barren and irregular breeding mares, \$7.50 prepaid. Write for **CATALOGUE** which illustrates and describes our Impregnating Devices, Breeding Hobbles, Stallion Brides, Shields, Supports, Service Books, Etc. **CRITTENDEN & CO., Dept. 38, Cleveland, Ohio, U.S.A.**

Increase Your Profits

THICK, SWOLLEN GLANDS

That make a horse Wheeze, Roar, have Thick Wind, or Choke-down, can be removed with

ABSORBINE

or any bunch or swelling. No blister, no hair gone, and horse kept at work. \$2.00 per bottle, delivered. Book \$3 E. free. **ABSORBINE, JR.**, for mankind, \$1 and 50c. **Edwards, Gottle, Tumock, Weiss, Various Vets., Ucers, Hydrocele, Varicocele.** Your druggist can supply and give references. Will tell you more if you write. Send for free book and testimonials. Manufactured only by **W. F. YOUNG, P. D. F., 295 Temple St., Springfield, Mass.** Canadian Agents: **Lyman's Ltd., Montreal.**

When Writing Mention The Advocate

QUESTIONS AND ANSWERS.
Miscellaneous.

CEMENT-TILE MACHINE.

I have been greatly interested in cement tile for farm use, but I never could run across any way of making them, but I read in last week's issue of a hand machine for making about 500 tile a day, but you do not give the name of the firm that is building these machines.

A. D.

Ans.—Machines for making cement tile are made by a concrete machinery firm advertising in "The Farmer's Advocate."

DIARRHEA IN TURKEYS.

Kindly let me know in your next issue a cure for turkeys affected with diarrhoea? Head natural color.

G. P.

Ans.—Sloppy food and stagnant water are generally the causes of diarrhoea in turkeys. Give scalded milk to drink and dry food. In place of dry grain, boiled rice and stale bread crumbs may be fed. Diarrhoea is a symptom of several serious diseases, such as blackhead and cholera, but as you mention no other symptoms, and do not speak of any having died, the trouble may be simple diarrhoea.

SOWING BUCKWHEAT EARLY—SUMMER PASTURE.

1. Would it not do to sow buckwheat earlier than June? I see everybody says, sow late.

2. Have a sod field, not much good. Would it do to plow and sow rape now for pasture till, say, September 1st, or what could I sow to make most feed for June, July and August?

SEBSCRIBER.

Ans.—1. Buckwheat may be sown in May, but the crop seems to prosper best when sown between the middle of June and the middle of July. On early-sown buckwheat the blossoms often dry up during the hot weather.

2. Rape, sown about the middle of May, would provide good pasture for nearly two months after the first of July. Milking cows would have to be kept from it on account of the strong flavor it gives the milk. A Middlesex County, Ont., farmer was last year much pleased with the pasture returns from oats sown on a plowed-up sod field. The mixture recommended by Prof. C. A. Zavitz for one season's pasture is 1 1/2 bushels oats, 30 lbs. Early Amber sugar cane, and 7 lbs. clover seed per acre. The clover seed might be left out if pasture was not to be used after September 1st.

Veterinary.

FATALITY IN COW.

Cow was all right at night. Next morning she was breathing very hard, and in less than an hour she was dead. A post-mortem revealed the large intestine full of clotted blood, and the small intestines contained bloody water.

A. C.

Ans.—She died from internal hemorrhage. In some way, which we cannot explain, a blood vessel ruptured, and she bled internally. There was probably a diseased condition of the coats of the vessels. This condition could not be suspected, and could not have been remedied if it were.

MAMMITIS.

I have two cows with garget. Very little milk is given by the diseased quarters, but a quantity of yellow matter. Give cause, prevention, and cure for the disease.

J. F.

Ans.—Mammitis, or garget, is caused in many ways. It often appears shortly after calving from the suddenly-increased activity of the glands. Irregular milking, wounds or bruises, sudden changes of weather, heat and cold operating alternately, wading through water, etc., etc. It often occurs without appreciable cause. This is particularly the case in cows with tubercular disease of the udder. Prevention consists in good care and regular milking. Curative treatment consists in administering a purgative of Epsom salts, applying hot poultices to the udder, milking four or five times daily, and after each milking rubbing udder well with camphorated oil. During treatment the patient should not be fed heavily on milk-producing food.



The CAPITAL is the Cream Separator that will "Buy Itself" For You.

As soon as you have read this advertisement, sit down and write a post card for The Capital book—the book that not only tells the story of the easy-running, cream-saving separator, but that tells how you can put The Capital in your own dairy practically without costing you a cent.

The book also tells all about the wonderful Capital gears, about their perfect meshing and non-wearing qualities—how they run in oil—how an automatic clutch stops them running the minute you let go of the handle—and about how they give the light, three-and-a-half-pound bowl, 7,000 revolutions a minute.

It tells how and why The Capital skims closer—why The Capital wastes less than one-fifth the cream that other separators waste—and then explains how the machine can be made sweet and clean in two minutes after you are through using it.

This book is full of hard-and-fast facts—separator facts—which every dairyman owes it to himself to know; facts which will prove a revelation to the dairyman who is not familiar with The Capital.

Write for the book to-day—NOW.

THE NATIONAL MFG. CO., LIMITED,
 Head Office: Ottawa. Factories: Ottawa and Brockville.
 Branch Offices:—Regina, Sask.; Edmonton, Alta.; Moncton, N.B.

The "BISSELL" is the lightest-draft harrow

Because of its astonishingly light draft, time after time the "Bissell" Disk Harrow, in field competition, has done DOUBLE the work its competitors have accomplished under the same conditions. The special shape of the "Bissell" Plates allows them to enter the ground easier and turn the soil with less effort. Steel blades, meeting the plates "chisel-fashion," keep the plates thoroughly clean. The space between the plates is kept clear of trash by movable clod-irons—the only Harrow that has this feature. Sand bands protect the ball-bearings from dust. The weight of the driver rests over the frame, and neck weight is removed. The hitch is well back, which is still another draft-reducing feature. Search the


continent over, and you'll not find a Harrow of such light draft and correct proportions as the "Bissell."

For further particulars write Dept. W for catalogue, or see your local dealer.



T. E. BISSELL
 Company, Limited,
 ELORA, ONT.

AGENTS—\$33.30 A WEEK



Why not make it? Jack Wood did it! He writes— "Hurry up 100 more—sold first lot in 2 days—best seller ever saw." Hundreds of agents selling money—\$5.60 worth of tools for the price of one. Wonderful invention—drop forged from finest steel. Nickel Plated all over. Astonishing low price to agents—1,200 ordered by one man. Get our grand confidential proposition quick. Sample free—don't delay—experience not needed—write at once. **THOMAS MFG. CO., 2144 Wayne St., DAYTON, OHIO**

A WINDSOR LADY'S APPEAL

To All Women: I will send free, with full instructions, my home treatment which positively cures Leucorrhoea, Ulceration, Displacements, Falling of the Womb, Painful or Irregular Periods, Uterine and Ovarian Tumors or growths, also Hot Flashes, Nervousness, Melancholy, Pains in the Head, Back, Bowels, Kidney and Bladder troubles where caused by weakness peculiar to our sex. You can continue treatment at home at a cost of only about 12 cents a week. My book, "Woman's Own Medical Adviser," also sent free on request. Write to-day. Address Mrs. M. Summers, Box 321 Windsor, Ont.

HEREFORD BULLS

You can buy two right good, well-bred Hereford bulls cheaply if you write me quickly. Do it now.

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 "Ingleside Farm."

The Maples Herefords

Canada's Greatest Show Herd

For sale: 6 young bulls and a number of young females, bred from imported and show stock. None better. Prices right.

W. H. HUNTER,
 Orangeville, Ont., P.O. & Sta.

Aberdeen-Angus Cattle—Stock all ages, and both sexes, good strains, at reasonable prices. Apply to **ANDREW DINSMORE, "Grape Grange" Farm Clarksburg, Ont.**

Balmiedie Polled Angus and Oxford Down sheep—Offering several exceptionally nice heifers, and a few young bulls. Discriminating buyers will be pleased with my herd. Anything in the herd will be priced. Also ram and ewe lambs. **T. B. Broadfoot, Fergus P. O. and Station.**

Homestead Aberdeen - Angus

Bulls all sold, but must sell a number of cows, as I am short of grass. Will be priced low for quick sale. Come and see them before buying.

Wm. Ische, Sebringville, Ont.
 Long-distance phone.

FOR SALE: SOME NICE YOUNG Aberdeen-Angus Bulls and some females of all ages. Also a first-class Clydesdale stallion. **J. W. Burt, Coningsby Ont. ABERDEEN - ANGUS**

Will sell both sexes; fair prices. Come and see them before buying. Drumbo station.

WALTER HALL, Washington, Ont.



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 a fence that won't break, and a post that won't rot.

Standard Woven Wire Fence
 is heavy steel wire, well galvanized, and locked with the "Tie That Binds"—our exclusive invention, which being an oval loop allows a long bend in the running wires.

STANDARD STEEL FENCE POST is No. 13 gauge steel, bent at right angle, and machined so that the fence is held secure without staples. Lots of fence facts in our book that you ought to know. Write for free copy and sample lock.

The Standard Wire Fence Co. of Woodstock Limited, Woodstock, Ont. and Brandon, Man. 15

NEW POTATO—EUREKA 1st EARLY

Four bushels from eleven tubers. White flesh and a good keeper. One of the best.

Peck's Early—Very like E. Ohio, but double the crop.

Sir Walter Raleigh—One of the best medium varieties (white).

Naught Six—A little on the Rural N. Y. No. 2 style, but a better flesh potato than R. N. Y. ever was.

If you want good pleasing potatoes, try any of the \$1 bushel. Special price on 10-bush. lots. Also **ROSES and SHRUBS**. We ship direct to customer with satisfaction. Send for Catalogue. (30th year.)

A. G. HULL & SONS, ST. CATHARINES, ONT., CANADA.

PREPARE NOW TO MAKE EVERY MINUTE COUNT AT HARVEST TIME

FOR you must make every minute count then to be sure of getting the full profit from your acres. Smooth, rapid, uninterrupted work is a necessity when the grain is ripe for cutting. Every delay due to a slow, inefficient broken-down machine will rob you of a part of the reward you have a perfect right to expect.

You have used great care in preparing the ground—sowing the seed—caring for it while it is growing.

Don't, through lack of foresight now, run any risk of making valueless at harvest time the hours of labor spent in preparing for it.

Be prepared to get all the crop with a McCormick.

Your grain may be tangled or down.

It does not matter, a McCormick Binder will pick it up quickly and bind it in the best possible shape.

The McCormick Binder is made to meet the requirements of the Canadian farmer.

It does so as no other machine does. It has stood the test of time. Its light draft, strength and uniform good work will permit you to save all your grain with the least labor on your part.

The McCormick line embraces a large number of other machines just as valuable as the binder, such as drills, tillage implements, gasoline engines, cream separators, wagons, hay presses, manure spreaders and motor vehicles.

Every McCormick machine is the superior product of expert designers and skilled workmen.

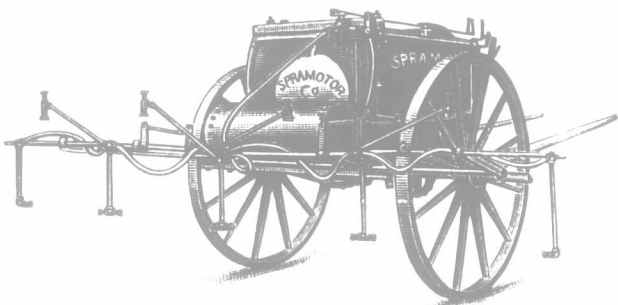
Look over your machines today. See what you need to properly handle the harvest this year. Then call on a local dealer or write direct for further information. Take the step now that will insure your getting all the profit from your harvest.

CANADIAN BRANCHES—International Harvester Company of America at Brandon, Calgary, Edmonton, Hamilton, London, Montreal, Ottawa, Regina, Saskatoon, St. John, Winnipeg, Yorkton.

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THE SPRAMOTOR

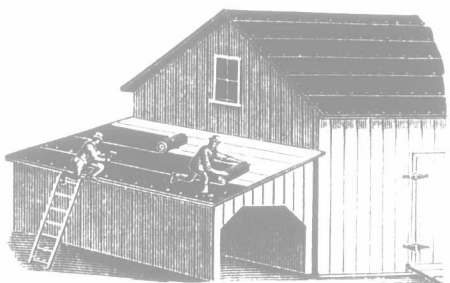


shown here, will rid an acre of potatoes of blight and bugs in 20 minutes. The only aid required is a horse. What do you think of that? Has non-clogging nozzles, 12-gallon air tank, 125 lbs. pressure guaranteed with 12 nozzles open. Agitator, clean out and pressure relief into tank, and nozzle protector, controlled from seat. Can be fitted for orchard, vine-

yard and grain crops. For 1 or 2 horses, or hand operated, if preferred. Write for free booklet. SPRAMOTOR, LTD., 1359 KING ST., LONDON, ONT.

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For steep or flat roofs, waterproof, fire-proof; easily laid; cheaper than other roofing. Send stamp for sample, and mention this paper.



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SHORTHORNS



Willowdale Stock Farm, Lennoxville, Que., has for sale young stock of both sexes, from his noted herd of 1,600-pound cows, descendants of Joy of Morning, Broad Scotch, etc. J. H. M. PARKER, PROPRIETOR.

CHOICE SCOTCH BULLS

FOR SALE. HERD-HEADING QUALITY. H. SMITH, R. R. 3, Hay, Huron Co., Ont. Farm adjoins Exeter, on G. T. R.

Meadow Lawn Shorthorns

I am offering for sale young stock, both bulls and heifers, of richest Scotch breeding, and of high-class show type. I can show some of the best young things in the country. F. W. EWING, SALEM P. O., ONT., ELORA STATION.



QUESTIONS AND ANSWERS. Miscellaneous.

ECZEMA.

I have a mare which continually keeps biting herself all over; even her legs, and to the feet. I thought she was lousy and clipped her, but found no lice; she pounds and bites all night. She is in fair condition. Could you tell me the cause, and prescribe treatment.

CONSTANT READER.

Ans.—The trouble is eczema. Give the whole body a thorough washing with strong warm soapsuds, applied with a scrubbing brush. Then dress, twice daily, with corrosive sublimate, 20 grains to a quart of water. Give internally one ounce Fowler's Solution of Arsenic, night and morning, every alternate week as long as necessary.

CEMENT WATER TROUGH.

Am thinking of making a cement watering trough about 12 feet long by 24 feet inside, to place against stable wall outside.

1. What thickness should sides of trough be?
2. How much cement and gravel would it require?
3. Would there be danger of ice breaking it?
4. Would it be better to put a partition in center of trough?
5. How could I arrange to draw water from tap inside of stable from the trough outside, which will be filled from a tank supplied by a windmill?

J. A. J.

Ans.—1. Four inches would not be too thick for sides of cement water trough.

2 and 3. About 2 barrels cement and one-fifth cord gravel, if mixed 1 to 5, and sides of trough were upright. By making sides flaring, however, there would be less danger of damage from frost, to which it would certainly be exposed, unless well protected.

4. A partition would strengthen trough, and there should also be plentiful reinforcing at all angles and corners.

5. A pipe with open end in trough and connecting with tap inside, might be imbedded low down in side wall of trough next barn while being built, or could be placed through floor of trough and enter stable below, or through stable wall. A siphon pipe over stable wall would work, but would be liable to freeze.

AN EXPENSIVE FERTILIZER.

I would like your advice about some fertilizer. I have bought a ton called for potatoes, and I would like to know which way to plant it, broadcast or to plant it in rows with the potatoes? Would it injure the potatoes to sow it in such a way? The land was no good last year. I had corn and some turnips on it last year, but they did not amount to anything. J. E. N.

Ans.—The brand of fertilizer you mention is a comparatively low-grade article, but is, unfortunately, very high-priced. I do not know the exact analysis of this brand, but do not see how it can be used at a profit at the price charged for it.

More economical and also more profitable results can most certainly be obtained by purchasing the separate ingredients and home mixing. If at all possible, would recommend you to test half an acre, or even one-quarter, fertilized with the separate ingredients, at a cost of about \$14 per acre, against this.

All fertilizers should be applied broadcast and lightly harrowed in about two weeks before planting the sets. This is necessary so that the potash and phosphate part of the fertilizer will be available as soon as the plants want to utilize it.

As this particular brand also contains a percentage of its nitrogen in the form of nitrate of soda, the time of its application is rather difficult to state. The latter ingredient is so readily soluble that it is very easily washed out of the soil. Hence it is a case of applying the fertilizer early, so that the potash and phosphate part of it may be utilized to the best advantage by the plant, and the risk of losing this latter ingredient, which is by far the most expensive, by leaching. If applied in the dills, close to the sets, it is very hard to reach them and so in the end it is wasted.

Lump Jaw



The first remedy to cure Lump Jaw was

Fleming's Lump Jaw Cure

and it remains today the standard treatment, with years of success back of it. Known to be a cure and guaranteed to cure. Don't experiment with substitutes or imitations. Use it, no matter how old or bad the case or what else you may have tried—your money back if Fleming's Lump Jaw Cure ever fails. Our fair plan of selling, together with exhaustive information on Lump Jaw and its treatment, is given in

Fleming's Vest-Pocket Veterinary Adviser

Most complete veterinary book ever printed to be given away. Durable bound, indexed and illustrated. Write us for a free copy.

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Stand supreme as a Blood and Nerve Tonic.

They are unequalled for Biliousness, Sick Headache, Constipation, Heart Palpitation, Indigestion and Anemia.

Those who are in a position to know what is best use "ELECTRIC BEANS."

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CIDER PRESSES

The Original Mt. Gilead Hydraulic Press produces more cider from less apples than any other and is a

BIG MONEY MAKER. Sizes 10 to 40 barrels daily. Also cider evaporators, apple-butter cookers, vinegar generators, etc.

CATALOGUE FREE. THE HYDRAULIC PRESS MFG. CO., 110 Lincoln Ave., Mt. Gilead, Ohio.

Maple Grange Shorthorns

Am offering an extra choice lot of 1-2 and 3-year-old heifers, Scotch and Scotch-topped, Clarets, Non-pareils, etc., sired by Royal Bruce, Imp, and among them are daughters and granddaughters of imp. cows. Young bulls also for sale.

R. J. DOYI E, Owen Sound, Ont. Phone connection.

GLENGOW Shorthorns

Have two excellent bulls left yet, both about ten months old, and good enough for any herd; also a number of choice heifers, all ages. For particulars write to:

Wm. Smith, Columbus Ont.

SHORTHORNS, Berkshires, Cotswolds.

About 50 Shorthorns on hand, including 9 bulls from 9 to 12 months, also young heifers and cows. No Berkshires or Cotswolds to offer at present. CHAS E BONNYCASILE, Station and P. O., CAMBELLFORD, N.T.

OAK LANE FARM

Clydesdales, Shorthorns and Cotswolds

Good stock for sale—most fashionably bred.

GOODFELLOW BROS., MACVILLE P. O., ONT. Bolton Station, C. P. R.; Calecn East G. T. R. Local and Long-distance telephone.

Shorthorns, Clydesdales and Oxford Down Sheep

Several red bulls 10 months of age, by Protector, imp; some with imp dams; heifers 2 and 3 years of age. Clydesdale mares and fillies. Lincoln and Oxford sheep. All at reasonable prices. Phone connection. McFarlane & Foad Bolton, Ont.

JOHN GARDHOUSE & SONS

Always have for sale a number of first-class Shorthorns, Shires and Lincolns, of both sexes. Drop us a line, or better, come and see for yourself. Weston Sta., G.T.R., & C.P.R. Long-distance phone in house.

HIGHFIELD P. O., ONTARIO.

CLOVER DELL SHORTHORNS

Present offering: A few females of breeding age, also 1909 young stock, both sexes, at reasonable prices.

L. A. Wakely, Bolton, Ont. Bolton Junction, on C. P. R., within one-half mile of farm.

Shorthorns and Oxford Down Sheep

Young bulls and heifers of richest Scotch breeding and highest quality. Twelve ewe lambs, two aged rams and two ram lambs. None better. Phone connection. Duncan Brown, Iona P. O., Ont.

QUESTIONS AND ANSWERS. Miscellaneous.

FAT-PRODUCING VALUE OF PEAS AND BARLEY.

If peas are worth 72 cents per bushel, what price should barley be per bushel, according to feeding quality for fattening hogs?

Ans.—It depends a good deal on what the grain is to be fed with. Theoretically, the relative capacity of these two grains for production of fat and heat would be about as follows, pound for pound: Peas, 796; barley, 755. At this rate, if 60 pounds of peas were worth 72 cents, 48 pounds of barley should be worth within a fraction of 55 cents. Understand, this is a purely theoretical calculation. In practice, the peas might not give as good relative results (unless very carefully fed), because of their being so concentrated and more highly nitrogenous than necessary for fattening purposes. If one of these grains were to be fed in conjunction with clover or alfalfa pasture, or with skim milk, it is quite conceivable that the barley might give better results per bushel than the peas. Ordinarily, best results should be expected from a combination of the two grains. As a rule, peas are not fed to the best possible advantage. They should usually be employed in moderate quantities, somewhat like oil-cake meal, which they approach in composition.

RAPE AS FERTILIZER—FERTILIZER FOR CORN—ENRICHING FARM.

1. Hearing people speak highly of rape as a fertilizing crop, I thought I would ask your advice on it. How do you value it, say sow the rape in the spring grain? Does it do good to plow down as a green manure, or is it as well to pasture it off and then plow? The soil is a black sandy loam.
2. Are those hand corn-planters that plant fertilizer and corn at the same time, a successful planter, or would it be better to plant each separately? What rate of each, to make a good fertilizer, would you recommend for corn to be planted on sod plowed down? Soil is sandy loam, well drained. The soil may possibly be a little run out, but there is a good sod, and the field has been in clover some day.
3. What way or means would you advise to be the quickest to build the soil up to good fertility on farm that had just come into your possession? Farm fairly well drained. H. P. Lambton Co., Ont.

Ans.—1. Rape is an exceedingly valuable forage crop, but is not reckoned so valuable for plowing under for green manure as the clovers, though any kind of green crop plowed under tends to improve the mechanical condition of the soil, and to add humus, and rape has this advantage, that it makes a vigorous growth and often succeeds where clover might not do well. Sown with spring grain, it frequently makes a good growth after grain is cut, and furnishes valuable pasture for young cattle and sheep. Sometimes it makes so much growth as to prove a nuisance in the butts of the sheaves, making the grain slow to cure out dry. To pasture and plow later is the most profitable way to use rape.
2. Some, at least, of the corn-planters alluded to, will do what is claimed for them. Except in special circumstances, all fertilizers should be broadcasted and harrowed in.
3. Adopt short rotation, say four years. Grow corn and roots largely, and feed everything grown on the farm. If they can be profitably fed, buy such feeds as bran and oil cake in addition. Sow a large area each year with clover. If you have any land suitable, grow alfalfa on it. Buy manure if you can get any. Carefully save and apply what manure is produced on the farm.

TRADE TOPIC.

Gluten cattle feed is advertised in this paper by the Brantford Starch Works, Limited, of Brantford, Ont. The guarantee showing of this feed makes an excellent analysis of its feeding value, and it should prove a very economical and profitable feed at a moderate price. See the advertisement, and write the firm for price.

275 BURLINGTON SHORTHORNS 275

3 Choice Imported Scotch Shorthorn Bulls—yearlings. 1 Imported 2-year-old Bull, red—an extra sire. 10 Bulls, 9 to 16 months old—all by imported sire. 30 Choice Young Cows and Heifers—mostly bred or have Calves at foot. Long-distance telephone. Farm 1/2 mile from Burlington Jct. Sta., G. T. R. J. F. Mitchell, Burlington, Ont.

SCOTCH SHORTHORNS—Eight extra good young bulls, from 10 to 15 months old; 20 choice cows and heifers, forward in calf or with calves at foot. Prices reasonable. Inspection invited. Farms close to Burlington Jct., G. T. R. W. G. PETTIT & SONS, Freeman, Ont.

INVERNESS SHORTHORNS I can supply Shorthorns of all ages, with richest Scotch breeding and high-class individuality. W. H. EASTERBROOK, Freeman, Ont. Imp. Scotch Shorthorns—When looking for Shorthorns, be sure to look me up. Young bulls fit for service, and females all ages; bred in the purple, and right good ones. A. C. Pettit, Freeman, Ont.

Maple Leaf Shires, Shorthorns, Hampshire Hogs 1- and 2-yr.-old Shire stallions, females from yearling fillies up; Shorthorns, both bulls and heifers; a choice lot of young Hampshire pigs, both sexes, beautifully belted. PORTER BROS., APPLEBY P.O., BURLINGTON STA. Phone.

Scotch Shorthorns A. Edward Meyer P. O. Box 378, Guelph, Ont.,

At Toronto Exhibition this fall yearling bulls bred by us won 1st and 3rd in class and junior champion. We also bred the sire of these bulls. The grand champion steer at Guelph was sired by a bull of our breeding. We have 10 young bulls for sale now, bred the same. Write for breeding and prices. John Miller, Brougham P. O., Ontario. Clarendon Stn., C. P. R., 3 miles. Breeds SCOTCH SHORTHORNS Exclusively Twelve of the most noted Scotch tribes have representatives in my herd. Herd bulls: Scottish Hero (imp.) = 55042 = (90065) 295745 A. H. B.; Gloster King = 68703 = 283804 A. H. B. Young stock for sale. Long-distance phone in house.

30 HEIFERS AND 29 BULLS PRESENT OFFERING. Bred right, made right and at prices to make you feel right. Come early and get your choice. List of these, with catalogue, will be mailed to those who ask for them. H. CARGILL & SON, CARGILL, ONT.

HIGH-CLASS SHORTHORNS Spring Valley Shorthorns I have on hand young bulls and heifers of high-class show type, pure Scotch and Scotch-topped, sired by that sire of champions, Mildred's Royal. If you want a show bull or heifer, write me. GEO. GIER, Grand Valley P.O. and station, also Waldemar station. Herd headed by Clipper Chief (imp.) = 64220 = (94673). If you want to get an imported bull, or a good Canadian-bred one to head your herd, be sure and write, or come and see them. Long-distance telephone. KYLE BROS., AYR P.O., ONT.

SALEM SHORTHORNS I have generally what you want in choice Shorthorns. Elora Station, G. T. R. and C. P. R. J. A. WATT, SALEM.

Three Shorthorn Bulls for Sale. Show animals, choice breeding. Prices reasonable. Stock bull, Benachie (imp.). GEO. D. FLETCHER, Binkham P.O., Erin Sta., C.P.R. Shorthorns and Leicesters. For sale Choicely-bred young bulls, and a number of 1 and 2 year-old heifers. All got by imp. sires, and out of grand milking dams. And Leicester rams and ewes of all ages. W. A. DOUGLAS, Tuscarora, Ont., Caledonia Station.

VALLEY HOME SHORTHORNS AND BERKSHIRES If you want a first class Shorthorn bull or heifer come and see what we have, or if you want a show animal with a choice pedigree we have them. For description of herd see Xmas Number of The Farmer's Advocate, on last page. S. J. PEARSON, SON & CO., MEADOWVALE, ONT., P. O. AND STATION, C. P. R.

Importation of Stock

Space in the Association cars will be reserved for all stock coming from the East to B. C., providing the owners or importers make application for definite space before April 30th, to R. W. HODSON, Live-stock Commissioner Victoria, B.C.

The B.C. Stock-breeders' and B.C. Dairy men's Associations pay half the transportation expenses.

Nitrate of Soda

Nitrate Sold in Original Bags NITRATE AGENCIES CO. California.....321 Stimson Block, Los Angeles 520 Bank San Jose Bldg., San Jose Georgia.....36 Bay Street, East, Savannah Illinois.....1204 Hartford Building, Chicago Louisiana.....305 Baronne St., New Orleans New York.....62 Stone Street, New York Virginia.....Citizens Bank Bldg., Norfolk Washington.....603 Oriental Block, Seattle Canada.....1103 Temple Bldg., Toronto Cuba..... Havana Address Office Nearest You Write for Quotations

Jerseys and Chester Whites

I am offering some choice young Jersey bulls, sired by Brampton's Blucher, winner of first prize, Toronto and Winnipeg, and from choice, deep-milking cows with good teats. Also Chester White pigs 3 to 4 months old, both sexes, at special prices. CHAS. E. ROGERS, Dorchester, Ont.

BRAMPTON Jerseys

CANADA'S GREATEST JERSEY HERD We are offering for sale one 2-year-old bull and four yearlings, fit for service; also six bull calves; females of all ages. Come and see them, or write. B. H. BULL & SON, BRAMPTON, ONT.

High Grove Jerseys and Yorkshires. No better blood in Canada. Present offering: Two young bulls, 12 and 20 months old, respectively; females all ages. Prices and all information on application. ARTHUR H. TUFTS, P.O. Box 111, Tweed, Ont.

Preston Steel Shingles are safe-locked on all four sides TOP LOCK SIDE LOCK You can only get the safe-lock construction in PRESTON Safe-Lock Shingles. Look at picture of our side lock. See how the sides of the shingles hook over each other. This is on the principle of the sailor's grip. It is utterly impossible for shingles locked in this way to pull apart. The heavier the strain the firmer the grip. The top of a shingle is where the greatest strain falls. Now look at our top lock. It is twice as strong as our wonderfully secure side lock. Notice that it consists of three thicknesses of sheet steel. The top of our shingle is unaffected by strains due to settling of building or shrinking of sheeting. PRESTON Safe-Lock Shingles are proof against rain, snow, wind, frost and lightning. The only way to get PRESTON Safe-Lock Shingles off the roof is to remove the nails one by one and unhook each shingle separately. When you put PRESTON Shingles on your roof they are on to stay. PRESTON Safe-Lock Shingles are the only shingles made and galvanized according to British Government Specifications. Shingles galvanized according to these specifications are good for twice the service of shingles galvanized in the ordinary way. They are also the only shingles with a Free Lightning Guarantee. Send today for our free booklet "Truth About Roofing." We did intend to charge something for this booklet. But we will send it free as a reward to all who cut out, fill in and mail the coupon to us. Do it right now. METAL SHINGLE AND SIDING CO., Limited, PRESTON, ONT. Branch Office and Factory, Montreal, P.Q. Queen Street Factory. Please send me your new booklet, "Truth About Roofing." I am interested in roofing, and would like complete information about PRESTON Safe-Lock Shingles and British Government Specifications. Name..... P. O. Address..... County..... Province.....

Let Him Alone

Perhaps some maker or agent of common cream separators is trying to sell you a disk filled or other complicated machine by claiming it is simplest, most efficient, or most



62 disks from one common separator exchanged for Dairy Tubular. The maker calls it simple and easy to clean durable. Ask him why he makes such claims when everybody knows that Sharples Dairy Tubular Cream Separators

use neither disks nor other contraptions, yet produce twice the skimming force, skim faster, skim twice as clean, wash easier and wear longer than common machines. If he tries to dispute these facts, ask him to go with you to the nearest Tubular agent and disprove them. If he refuses to go, just let him alone—his machine is not the kind you want.

Tubulars are The World's Best. Sales easily exceed most, if not all, others combined. Probably replace more common separators than any one maker of such machines sells. The manufacture of Tubulars is one of Canada's leading industries. Write for Catalogue No. 193

THE SHARPLES SEPARATOR CO.
TORONTO, ONT. WINNIPEG, MAN.

Cattle Feed!

Have you ever fed
**BRANTFORD
GLUTEN FEED**

To your milking cows?

Note the guaranteed analysis:

Minimum Protein15%
Minimum Fat10%
Maximum Fibre 7%

No feed on the market so economical. Write for prices, which vary with the corn market.

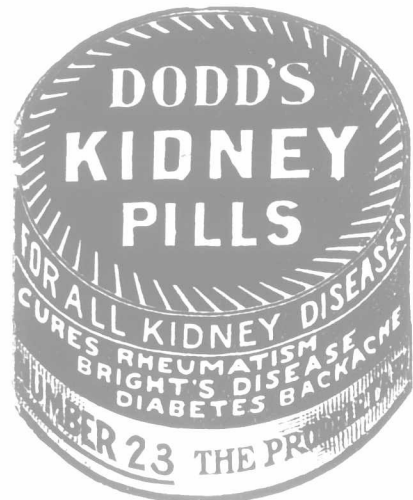
THE BRANTFORD STARCH WORKS, LIMITED,
BRANTFORD, ONTARIO

Fairmount Holsteins

Headed by Aaggie Grace Cornucopia Lad, whose dams for four generations have records that average 21.30 lbs. For sale are two young sons of his, cows and heifers freshened to him. C. R. Gies, Heidelberg P. O., St. Jacob's Sta.

Ridgedale Holsteins—I have left three bull calves that will be priced right for quick sale; their dams are heavy producers, and their sire was bred right.
R. W. WALKER, Utica, Ont. Phone connection.

A man named Stone and one named Wood met on the street recently, and they stopped for a moment to exchange a few cheerful views, when a woman in a particularly noticeable sheath-gown passed. Simultaneously, Wood turned to Stone; Stone turned to Wood; then both turned to rubber.



QUESTIONS AND ANSWERS. Miscellaneous.

ENGINEERING IN THE WEST.

Has there been a law passed lately prohibiting a person running an engine in the West without an engineer's certificate? Could I study at home so as to be able to write on an engineer's exam? If so, where could I get the books? Where would I have to go to write on this exam., and how much would it cost?
YOUNG ENGINEER.

Ans.—This matter is under Provincial jurisdiction. Alberta and Saskatchewan, we believe, both stipulate that before a man may run a steam engine within their precincts, he must have a Government certificate. Regarding the conditions on which certificates are issued in the latter Province, we append an official statement we have on file from the Deputy Commissioner of Public Works at Regina:

"With reference to the provisions of the Steam Boilers Act in Saskatchewan, I have to say that a Provincial Certificate, qualifying the holder to operate boilers up to 40 h.p. for a period of one year, can be granted upon receipt of satisfactory proof that the applicant has served one year, or three threshing seasons, operating boilers. A form of application for this grade of certificate is supplied by this Department upon request. Applicants who have not had this experience, are required to serve three seasons firing under a qualified engineer, and upon completion of this term to pass an oral examination before an Inspector of Steam Boilers. For the higher grades of certificates, a written examination is necessary, previous to taking which, the applicant must file proof of considerable engineering experience in the operation of boilers. The fees in this connection are: For Provisionals, \$3; for third- or second-class, \$5; for a first-class, \$10. The examinations are most conveniently taken at this Department, and the certificates issued by us are good only for the Province of Saskatchewan."

GROUND-HOGS.

Can you give me a sure way of destroying ground-hogs? Trapping is very uncertain, smoking them out seems a failure altogether, and digging them out makes quite a waste in a field of clover, if there be a number of holes. A. W.

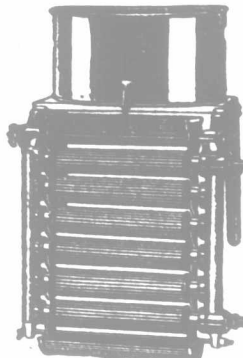
Give best way you recommend for the destruction of ground-hogs?
G. H. F.

Ans.—Poisoning, by placing in the burrows cloths dipped in carbon bisulphide, an inflammable, poisonous liquid, which volatilizes readily, forming a vapor which is heavier than the air, and hence sinks to the bottom of the burrow, killing the ground-hogs, is a remedy which has been often recommended in these columns, and is effective.

This liquid can be purchased at any druggist's at about 5 cents an ounce—cheaper in large quantities, and an ounce is quite sufficient for one hole or nest.

Spot out the holes which you know to be habitated, and then, about sundown, with bottle and bits of old woolen rags or waste of any kind, go the round and doctor each one. Roll up a little piece of rag about the size of a hen's egg, not too tight, and saturate this from the bottle, pouring on until the rag has all it will hold. Then reach down the hole as far as you can and deposit it there, after which cover up the entrance with sods or loose earth, and tramp solid, being careful not to allow the earth to roll down and cover up the rag, else this might stop the volatilization of the liquid into the deadly gas which suffocates the animal. This gas is heavier than air, so penetrates to the bottom of the hole, and kills all living things. Covering the hole is probably unnecessary, as the gas, being heavier than air, would go down and exclude the air, but when you cover the end of the hole or holes, as the case may be, you can see, if you go back, whether the ground-hog has dug out or not. If not so, in a day or two, you may conclude he has been dispatched.

This method is much ahead of traps or shooting, as it takes very little time, and is quite inexpensive. When you have administered the dose and covered the hole, the ground-hog is dead and buried in the grave he dug himself.



The Secret of Pure Sweet Milk

You dairy-farmers can't afford to ship impure, germ-laden milk into the towns and cities. Our medical authorities are urging the Government to penalize offending dairymen very severely—don't you run any risks. If you pass all your milk through the Root Cooler-Aerator immediately it leaves the cow, you can guarantee it pure and sweet and get a bigger price for it per gallon. The

Root SANITARY MILK Cooler-Aerator

will keep the milk sweet for 48 hours because it kills the animal heat quickly and cools the milk to the same temperature as cold running water. The water is admitted at the bottom, flows through the bottom tube, then from the water column into the second tube and so on until it reaches the top where it is kept perfectly cold all the time, and as they are deeply convulsed the milk flows down them slowly, reaching the retaining pan thoroughly cooled and aerated. Cylinders are made of heavy copper, heavily coated with pure tin and guaranteed to stand heavy water pressure. Perfectly simple to operate—no complicated parts—a child can easily clean the whole machine in 5 minutes. Made in various sizes—will cool from 40 to 75 gallons a minute. Write today for catalogue and prices—every dairyman should have a Root Cooler—it's a big money maker. Address: W. A. Drummond & Co., 175 King St. East, Toronto

WOODBINE FARM HOLSTEINS

Offers a number of fine bulls and bull calves, sired by Sir Creamelle, who is a direct descendant in two different lines of the great cow, Duchess Ormsby, 24.44 lbs. butter in 7 days, dam of five daughters with records that average 20 lbs. of butter in 7 days, the greatest producing family of the breed. Write for prices. Telephone connection. Shipping stations: Ayr, C. P. R.; Paris, G. T. R. A. KENNEDY, AYR, ONTARIO

CENTRE AND HILLVIEW Holsteins

140 head, 45 females, U. M. Herd headed by Brookbank Butter Baron, Bonheur Statesman and Sir Sadie Cornucopia Clothilde. The average of dam, sire's dam and grandam is: milk in 7 days, 662.86 lbs.; butter in 7 days, 30.58 lbs. We have bulls born Mar., '09, to two weeks old for sale, from Record-of-Merit dams. Long-distance telephone P. D. Ede, Oxford Centre, Ont. Woodstock Sta.

HOMWOOD HOLSTEINS, headed

by Grace Fayne 2nd's Sir Colantha, one of the richest bred bulls of the day. (The home of Lady Aaggie De Kol, sweepstake cow at Guelph Winter Fair, '08-'09.) Official record 27 1/4 lbs. of butter in 7 days. Also Queen's Butter Baroness, champion 3-year-old of Canada; official record 23.66 lbs. of butter in 7 days; and several others with records of over 20 lbs. of butter in 7 days. Only a few choice bull calves for sale. M. L. & M. H. HALEY, Springfield, Ont.

Holstein - Friesians

FAIRVIEW FARM offers young bulls, sired by Pontiac Korndyke and Rag Apple Korndyke, without question the two greatest Korndyke bulls in the world, and out of cows with large A. R. O. records and testing 4% fat. Come and see them, or write. E. H. DOLLAR, Heuvelton, N. Y. Near Prescott.

LAKEVIEW HOLSTEINS!

Herd headed by Count Hengerveld Fayne De Kol, whose sire, Pietertje Hengerveld Count De Kol, is the sire of De Kol Creamelle, the world's champion milk cow, with 119 lbs. milk in 1 day, 780 lbs. in 7 days, 10,017 lbs. in 100 days. He has five daughters that average 30 lbs. in 7 days, and 120 lbs. in 30 days. His dam, Grace Fayne 2nd, 26.30 lbs. in 7 days, is dam of Grace Fayne 2nd's Homestead with the following records:
7 days, 4 years old, 29.16 lbs. % fat 4.12 Bull
30 " 4 " " 119.22 " " 4.09 calves
7 " 5 " " 30.55 " " 4.37 for
7 " 6 " " 35.55 " " 5.42 sale.

E. F. OSLER

BRONTE, ONTARIO.

The Maples Holstein Herd

of Record-of-Merit cows, headed by King Posch De Kol. Nothing for sale at present except choice bull calves from Record-of-Merit cows. Also one or two good cows.

High-class Holsteins—Head of herd, Pietje

Korndyke Lad. Two nearest dams average 26.09 lbs. butter in 7 days. His sire's dam, Pietje 22nd, has a record of 31.62 lbs. butter in 7 days. Present offering; now booking orders for bull calves sired by above sire and out of A. R. O. dams.

WALBURN RIVERS, FOLDEN'S, ONTARIO

WM. C. STEVENS, PHILLIPSVILLE, ONT.

Elmwood Holsteins

Choiely-bred calves for April and May delivery. Sired by imported Ykema Sir Posch and Pontiac Sarcastic, a grandson of Sarcastic Lad. Registered. Delivered. Express paid. Safe delivery guaranteed. E. D. GEORGE & SONS, PUTNAM, ONT.

Evergreen Stock Farm

For sale: A fire bull call 2 months old, from Pauline Pet, record 16,000 lbs. of milk per year for 8 years; sired by Sir Mercena Favorite. Also other bull calves at moderate prices. F. E. PETTIT, BURGESSVILLE, ONT.

Burnside Ayrshires

Having disposed of my 1909 importation, I intend leaving about March 1st for another lot. I expect to have a number of bulls through quarantine by first week of June. Orders entrusted to me will be carefully attended. We have a few young bulls fit for service on hand of choice breeding, and females of all ages. Phone, etc.



R. R. Ness, Burnside Stock Farm, Howick, Que.

Ayrshires—Four young bulls, all bred on dairy lines, out of famous dams; fashionable in color, as well as in breeding. Will be sold worth the money. Females all ages.

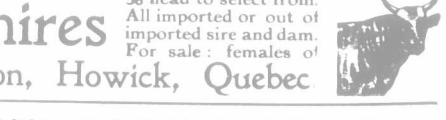
HILLCREST AYRSHIRE S.—Bred for production and large teats. Record of Performance work a specialty. Fifty head to select from. Prices right.

N. DYMENT, Clappison's Corners, Ont.

FRANK HARRIS, Mount Elgin, Ont.

Stonehouse Ayrshires

36 head to select from. All imported or out of imported sire and dam. For sale: females of all ages. Am now booking orders for bull calves. Hector Gordon, Howick, Quebec



CRAIGALEA AYRSHIRES.

Present offering: One Bull, 14 months old, unbeaten at Fairs last fall; also 3, under 6 months, all from Record of Performance cows, true to type, with good teats; also a few Heifers.
H. C. HAMILL, Box Grove P. O., Markham, G. T. R. Locust Hill, C. P. R. Bell phone connection from Markham.

STEWART M. GRAHAM

PORT PERRY, ONTARIO. Pedigree-live-stock and real-estate AUCTIONEER. Graduate of Jones' National School.

Ayrshires and Yorkshires!

We still have a few choice individuals of almost any age on hand in Ayrshires, and are always ready to price any. Other breeders in this section. Bull calves from Record of Performance cows. A few young Yorkshires on hand. Long-distance phone. ALEX. HUME & CO., MENIE, ONT.

CALVES

Raise Them Without Milk. Booklet free. The Steel, Briggs Seed Co., Toronto, Ont.

Shannon Bank Ayrshires and Yorkshires

Am now offering young bulls and heifers, true to type and high in quality. Young Yorkshires of both sexes. W. H. Tran & Son, Locust Hill P. O. & Sta., Ont.

Ayrshires from a Prizewinning Herd

calves for sale at reasonable prices. For particulars, etc., write to WM. STEWART & SON, Campbellsford Stn., Menie P. O., Ont.

ISALEIGH GRANGE AYRSHIRES!

Our herd were all selected on their ability to produce a heavy yield of milk. We have a number of 40, 45 and 50 lb cows, imported and Canadian-bred. From them are young bulls and heifers for sale. None better. JAMES BODEN, DANVILLE, QUEBEC, ISALEIGH GRANGE FARM.

W. STEWART & SON

Campbellsford Stn., Menie P. O., Ont.

GOSSIP.

At the auction sale of Shorthorns at the Royal Dublin Show, the young bull, Orphan Stamp, shown by R. G. Wordsworth, sold to F. Miller for \$1,685. Geo. Harrison's Prince Olaf II., sold for \$1,980. Four others sold for \$500 to \$535 each.

THE ROYAL DUBLIN SHOW.

The annual spring show of the Royal Dublin Society was held, as usual, at Ball's Bridge, Dublin, Ireland, on April 19th to 22nd.

Shorthorns are the prevailing cattle breed of Ireland, and in numbers they totalled at this show 464 entries. In the open class for yearling bulls, Donald MacLennan was first with his Perth Show purchase, Strowan Archduke II., looking fresh, and an easy victor. F. Miller was second with his Birmingham purchase, Prospector, bred by Jolliffe, of Darlington.

In the open class for aged bulls, Geo. Harrison was first with the light roan, Mintmaster (96107), a four-year-old, bred at Uppermill, by John Marr, and got by Violet Royal (90424). He was also awarded the Chalover Plate, as the best bull in the show (excluding yearlings). The second-prize aged bull was the dark roan, Good Friday, bred by Mr. Hope, and bought at Mr. Barnes' sale. This is a great, fleshy bull, and was a strong favorite for first honors.

In the Aberdeen-Angus class, the breed championship went to John McPherson, Keith, for his noted bull, Eclipser of Ballindalloch, by Jeshurun. The reserve for this honor was Mr. Beaumont-Nesbitt's two-year-old Douro.

CLYDESDALES AT KILMARNOCK.

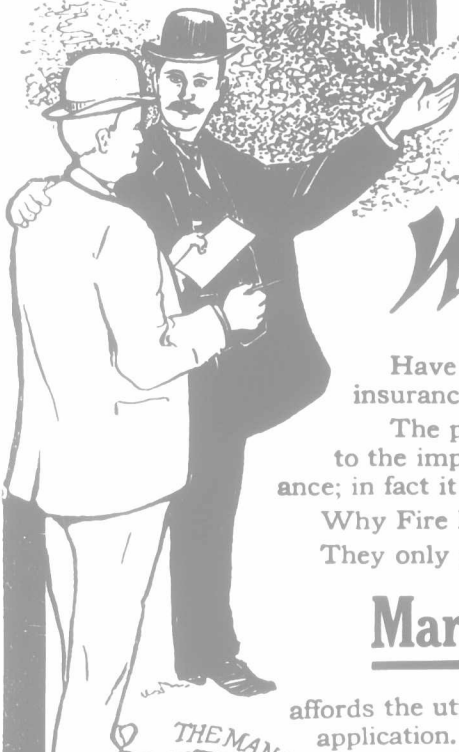
The 117th annual show of the Kilmarnock, Scotland, Show, was held April 16th, and in spite of very unfavorable weather, was a success, in so far as the quality of the exhibits is concerned.

There appears to have been no prizes for aged Clydesdale stallions, but in a good class of three-year-olds, the first award went to A. & W. Montgomery's Mondel (14763), bred by Leslie Durno, and got by Rozelle, out of Gem, by Prince Thomas. James Kilpatrick's Silvertail (14855), by Togo, was second. He is this year the premier horse of the Bute Society. He has more size than the winner, and is a great, powerful stamp of a three-year-old. The two-year-old colt class was highly satisfactory in quality. There was no question about the merit of the winner, a son of Sir Hugo, bred by W. J. Kerr, Paisley. He is a big, strong colt, with plenty of bone of the right quality. There was a grand second in the massive young horse Ruby, by Ruby Pride (12344), owned by Messrs. Montgomery. Last year he was first at the Bute Show, and second at the Royal English Show, while this year he was first at Castle-Douglas. The third prize went to James Kilpatrick, for a capital son of Oyama.

There was a grand class of 19 yearling colts, and the first award went to Wm. Dunlop, full brother to the champion, Dunlop Footprint, by Baron of Buchlyvie. The second place was given to Messrs. Montgomery's typical black colt, bred by Thos. A. Carrick, and got by Royal Edward. James Kilpatrick was third, with a fine colt sired by Oyama. The male championship went to Messrs. Montgomery, for their three-year-old horse, Mendel. The female section was uncommonly strong in numbers and quality.

TRADE TOPIC.

EDISON LIST OF RECORDS FOR MAY. The Edison Records for May include songs from the best operatic artists, such as Marguerita Sylva, Florencia Constantino, Walter Somer, Blanche Arad, and Ernest Caronna. There are also reproduced the work of the best musical organizations in both the United States and Britain. Elocutionists, vaudeville artists, concertinas, saxophones, and brass bands, can be heard at home. The wealth of selections and standard of talent that the Edison lists present is surprising. Operatic numbers, popular sentimental hits, rag-time melodies, sacred selections, in solos, duets and quartets, appeal to all tastes. Variety and quality are claimed for the May lists, which comprise forty-four two- and four-minute records.



Why Insurance?

Have you ever considered "Painting" from the standpoint of an insurance policy?

The premium represented by the cost of painting is in proportion to the importance of the security afforded, no higher than other insurance; in fact it is considerably smaller, and soon becomes a minus quantity. Why Fire Insurance—Tornado Insurance—Lightning-rods? They only protect when that which you wish to avert, happens.

Martin-Senour Paint 100% Pure

affords the utmost protection, insures your property, beginning with its application. It wards off the sun dogs of Old Sol, the nips of Old Jack Frost—the ravages of Old Father Time.

Prevents dry rot—checks deterioration. No safer, surer or more reliable insurance could be offered.

If your dealer cannot supply you, notify us and we will gladly direct you to where our paints are to be had.

Decline All Substitutes

Write for illustrated booklet, "Home Beautiful," and interesting color card. Free for the asking.

The Martin-Senour Co., (Limited) Montreal
Pioneers Pure Paint



I WILL SHEEP of the different English breeds for those wanting them. Selections will be made with the greatest care, and the charges will be moderate. Will also bring a few CLYDESDALES and SHORTHORNS on order. Let me know what you want, and ask for particulars. Have two Shorthorn bulls just landed that will be sold worth the money, and they are high-class in every way. Have as usual home-bred Shorthorns. ROBERT MILLER, Stouffville, Ont.

Southdown Sheep

Unequaled for quality of mutton and wool, hardy constitution and early maturity. STRIDE & SON will sell by auction at CHICHESTER, SUSSEX, ENGLAND, ON

August 17th and 18th, Next. 7,000 SOUTHDOWN EWES, 600 SOUTHDOWN RAMS AND RAM LAMBES. Commissions carefully executed.

STRIDE & SON, CHICHESTER, SUSSEX, ENGLAND.

WOOL

WE WANT TO BUY YOURS. WRITE NOW FOR OUR PRICES. E. T. CARTER & CO., 84 FRONT ST. E., TORONTO, CANADA.

Monkland Yorkshires

With very nearly 100 sows in breeding, of modern type and high-class quality, our herd will stand comparison with any in Canada. We are always in a position to fill large or small orders with despatch. Long-distance phone. JAMES WILSON & SONS, FERGUS, ONT.

Willowdale Berkshires!

Nothing to offer but suckers and three extra choice young sows, bred to farrow May and June. Be quick if you want one. J. J. WILSON, Importer and Breeder, Milton P. O. and Station. C. P. R. and G. T. R.

Newcastle Tamworths and Shorthorns

FOR SALE: Young sows due April and May, by imp. boar, dams by Colwill's Choice, Canada's Champion boar in 1901-2-3-5; also choice pigs, both sexes. Two yearling Shorthorn bulls, Syme and Lavender families, and six choice heifers and heifer calves. Prices right. Bel phone. A. A. Colwill, Box 9, Newcastle, Ont.

PINE GROVE YORKSHIRES

At the late Guelph Winter Show we won more prizes than any two exhibitors, including all the firsts and sweepstakes for best dressed carcasses, both at Guelph and Ottawa Winter Fat-stock Shows of 1908-'09. Young pigs for sale, mated not akin, all the progeny of imported stock of superior excellence. Joseph Featherston & Son, Streetsville, Ont.

DUROC - JERSEY SWINE

Imported and home-bred. Sows ready to breed. Boars fit for service, and younger ones either sex. Also Embden geese. MAC CAMPBELL & SONS, HARWICH, ONT.

Tamworths

A grand lot of young boars from 2 to 4 mos., also young sows (dandies). Some just bred. Some in farrow to first-class boars from best herd in England. Prices reasonable. Chas. Currie, Morriston, Ont.

Maple Villa Yorkshires and Oxford Downs

For immediate disposal: A number of choice young boars ready for use. Some splendid sows bred to farrow in May, and others of breeding age. An excellent lot of ewe lambs. Satisfaction assured. J. A. CERSWELL, BOND HEAD, ONT., BEETON OR BRADFORD STATIONS.

Please Remember to Mention "The Farmer's Advocate" When Writing

LABELS Metal Ear Labels for Cattle, Sheep and Hogs.

The old standby for all who have stock liable to stray, or to dispute as to identification or ownership; for herd or flock records, or for general convenience. Send for free circular and sample. It may save you much trouble. Write to-day.

F. G. JAMES, BOWMANVILLE, ONTARIO.

FAIRVIEW SHROPSHIRE OFFERING: Choice rams, shearlings and lambs. Extra good eyes, shearlings and older. They are of the very best breeding. Quality and condition beyond criticism. If you want a few, order immediately. Supply limited, demand unlimited. Circular and prices on application to J. & D. J. Campbell, Fairview Farm, Woodville, Ont.

Oxford Down Sheep, the Yorkshire Hogs.—Present offering: Lambs of either sex. For prices, etc., write to John Cousins & Sons, Harriston, Ont. Buena Vista Farm.

LARGE WHITE YORKSHIRES.

Have for sale at the present time a fine lot of young sows bred to imp. boar, due to farrow end of May; also boars ready for service. A good lot of spring pigs. Pairs supplied not a kin from large stock from the best British herds. Long-distance Bell phone. C. P. R. & G. T. R.

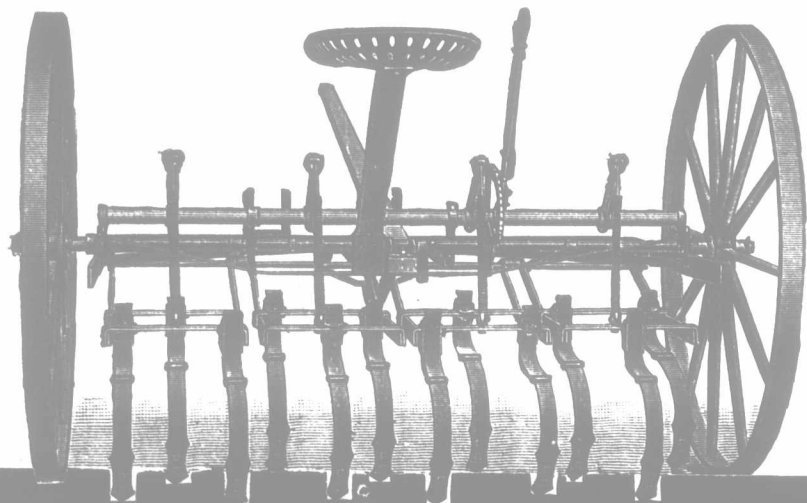
H. J. Davis, Woodstock, Ont.

PINE GROVE BERKSHIRES!

Sows bred and ready to breed. Nice things, three and four months old. W. W. BROWNIDGE, Milton, C. P. R. Ashgrove, Ont. Georgetown, G. T. R.

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. and Stn.



NOTICE THE TEETH

In considering the purchase of a Spring-Tooth Cultivator notice the Teeth very carefully. They are one of the most important parts of this kind of an implement. It depends upon the Teeth as to how well it does its work. See that they are of proper length, proper shape and temper; that the points are reversible, for that means double value to you. Next see that the Frame is simple and strongly built of steel and malleable iron so that it will stand the strain and wear well. Ask our agent about a

FROST & WOOD "CHAMPION" SPRING TOOTH CULTIVATOR

and you will see a machine that embodies all these good points. He will tell you that the Teeth are tempered in oil and tested; that they are made of Crucible Spring Steel, and the reversible points are an especial advantage as when one becomes worn by hard, stony ground it can instantly be reversed, and you have a new sharp point. Teeth can be spread or taken off when used for corn or root crop cultivation. It is an implement that gives perfect satisfaction because it does perfect work and stands rough wear. Our Free Catalog F-56 gives more good points. Write for it, or get it from our nearest agent.

The FROST & WOOD CO., (Ltd.), Smith's Falls, Can.

VANCO LEAD ARSENATE

Made in Canada

Destroys All Leaf-Eating Insects

"VANCO" Lead Arsenate will kill 95% of Codling moths where Paris Green at its best will not kill over 75%.

For potato bugs it is far surer than Paris Green, and sticks to the vines much longer, especially in rainy weather.

"VANCO" Lead Arsenate contains 15% to 16% Arsenic Oxide and not over 40% moisture average. It is made by expert chemists and the quality is absolutely reliable. It never fails to kill the insects, and never burns the foliage.

Because we make it right here in Canada, in large and well-equipped laboratories, we are able to offer you "VANCO" Lead Arsenate at very favorable prices. Compare these with what others are asking.

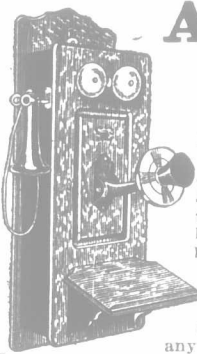
In 500 lb. barrels, .10c. per lb. In 100 lb. kegs., .11c. per lb.
" 50 " " .112c. " " 25 " " .12c. "
In 124 lb. pails, .13c. per lb.

In "VANCO" Brand you get High Quality at Lowest Price. We ask for business not on promises, but on records of Government Analyses and practical tests.

Club your orders and save on freight

Write for free Booklet on Sprays.

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Poles, Wire, Brackets, Insulators, Tools, Lightning Arresters, Ground Rods, Batteries, Insulated Wire, and everything necessary.

NO CHARGE for our experts' letters of advice, drawings, explanations, instructions, telling you in any language, non-technical, just how to build, own and operate your rural, town or long distance lines in a good but economical way and at a profit, thereby getting your own telephone free.

We are the largest, exclusive and the only bona-fide Independent Telephone and Switchboard makers in Canada or Great Britain.

Our Telephones are extensively used in Canada, England, France and by the U. S. Government.

Our great illustrated book on the Telephone sent Free to anyone writing us about any new Telephone lines or systems being talked of or organized.

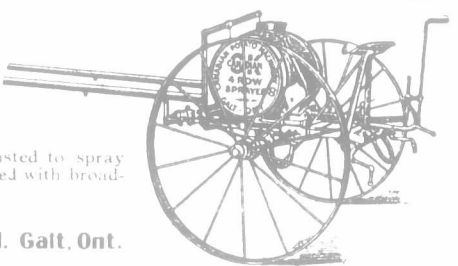
We have a splendid money-making proposition for good agents.

The Dominion Telephone Mfg Co., Ltd. Dept. C, Waterford, Ont., Canada.

O.K. CANADIAN 4- ROW SPRAYER

Sprays 4 rows while you drive. No hand pumping to do. Wheels and nozzles adjustable for wide and narrow rows. Can be adjusted to spray vines 6 inches to 2 1/2 feet high. Can be furnished with broadcast vineyard and tree-spraying attachments.

Write for particulars:
Canadian Potato Machinery Co., Ltd. Galt, Ont.



GOSSIP.

J. H. Patrick, Elderton, Ont., writes: "On April 16th I shipped to our Western branch stables, situated at Katesville, Utah, two carloads of very choice Clydesdale stallions, all Canadian-bred, and purchased through my advertisement in "The Farmer's Advocate." Sir Marcus, as usual, is attracting a great deal of attention among the stockmen of Utah, and should help to make a great market for the Clydes of this country in the near future.

Robt. Ness & Son, of Howick, Que., report a most successful season's business in Clydesdales. Of their two large importations in 1909, all are sold, and Robt. Ness, Sr., and R. R. Ness are now in Scotland looking up a new importation of Clydesdales and Ayrshires. They are expected home shortly, and anyone wanting the cream of either breed should make a note of it, as first selection is generally most satisfactory.

AYRSHIRES AT KILMARNOCK.

The display of Ayrshire cattle at the Kilmarnock, Scotland, Spring Show, was an extra-strong one. In the class for cows in milk, the first prize fell to John McAlister, for a home-bred cow, by Sir John, with a particularly good udder. Last year's champion, belonging to John Murray, Cumnock, a low-bodied cow, got by Flora's Chief, and carrying a long udder, with large and squarely-set teats, was second. There was a very strong show in the class for cows in calf, and here, again, Mr. McAlister was first, with another daughter of Sir John, second award going to John Drennan for perhaps the best dairy cow on the ground. James Neil, Horlford, had a close third. The Derby class for three-year-olds brought out over a score of entries, a compact, level lot. Alex. Hunter, Craigie, was placed first, with Ross, brown and white, got by Duke of Foulton, out of a Flora's Chief cow. At the Craigie Show the previous week, this cow took first in her class. Robt. Woodburn followed in second place with a get of Barrowness Campfollower.

John McAlister again provided the winner in the class for dairy cows, three years and upwards, bred and reared by exhibitor, with his first-prize aged cow in calf. He was also second with the winning aged cow in milk. In a good class of three-year-olds in calf, James Neil had first and third, an evenly-matched pair.

In the two-year-old heifer class Jas. Howie supplied an outstanding winner in Hillhouse Creampot, a Netherland-bred heifer, by Robin Hood. This is one of the best specimens exhibited for some time. She is an extra-level and well-balanced heifer, full of quality and style. Robt. Osborne's entry, which beat her at the Highland Show last year, was second here. Her sire was the famous Peter Pan, and she is a select heifer, brought out in grand condition.

The yearling heifers were a choice, level lot, and Thos. Barr, Monkton, was placed first, with a stylish, sweet heifer, the Morton Mains herd of Mr. Osborne taking second with a lengthy, big heifer, and James Seaton third, with an excellent entry.

The championship for the best female of the breed went to James Howie's first-prize two-year-old heifer, Hillhouse Creampot.

In the aged bull class, Hugh H. Allan, Thornhill, was first, with Peter Pan; Thos. Barr was second. Two-year-old bulls were a large and strong class, and Robt. Osborne was first, with a well-made bull of much substance. Thos. Barr was second, and Jas. Howie third. Yearling bulls were the best class in the male section. John Cochrane was first with Cariso, a big, strong, thick bull, bred at Auchinbraim, and sired by the good breeding bull, Crusader. A close second was provided by Jas. Howie, in a very level, sweet son of Spicy Sam, and Mr. Osborne had third honors with a stylish bull. The Champion Cup for the best male animal went to John Cochrane, for his first-prize yearling bull, Cariso, the reserve being Mr. Osborne's best prize two-year-old.

Suffered From Her Terrible Pains From Her Kidneys For Nine Months.

For Backache, Lame or Weak Back— one of the commonest and most distressing symptoms of kidney inaction, there is no remedy equal to Doan's Kidney Pills for taking out the stitches, twinges and twinges, limbering up the stiff back, and giving perfect comfort.

A medicine that strengthens the kidneys so that they are enabled to extract the poisonous uric acid from the blood and prevent the chief cause of Rheumatism.

Mr. Dougald A. McLesao, Broad Cove Banks, N.S., writes:—"I was troubled with my kidneys for nine months, and suffered with such terrible pains across the small of my back all the time that I could hardly get around. After taking two boxes of Doan's Kidney Pills I began to feel better, and by the time I had taken three I was completely cured."

Price 50 cents per box, or 3 for \$1.25, all dealers or mailed direct on receipt of price by The T. Milburn Co., Limited, Toronto, Ont.

When ordering specify "Doan's."



"ELECTRO BALM" CURES ECZEMA,

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Gentlemen use it after shaving. This Balm is handled by the best firms, and is highly recommended by those who have used it.

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50c. a Box at all Dealers or upon receipt of price, from
THE ELECTRIC BEAN CHEMICAL CO.,
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Her—Will you please shut the door?
Him—I've tried to, but it won't stay closed.

Her—It will if it is closed from the outside.

LAY FOR WEEKS AT DEATH'S DOOR

But Dodd's Kidney Pills Cured
Mrs. Thompson's Dropsy.

It started with Backache and grew worse till the doctor said she must die.

Holt, Ont., May 9.—(Special.)—All the countryside here is ringing with the wonderful cure of Mrs. Samuel Thompson, who lay at the point of death for weeks, swollen with dropsy so that the doctor five different times decided to tap her, but desisted because, as her husband said, "It might be better to let her die in peace." After the doctor had given her up, Dodd's Kidney Pills cured her.

Mrs. Thompson's terrible trouble started with pain in the back. She grew worse and the doctor treated her for jaundice for eight weeks. Then her feet and legs began to swell, and it was realized that Dropsy was the trouble. For seven months she suffered. The doctor said there was no hope; she must die.

As a last resort, Dodd's Kidney Pills were tried. The improvement was slow, but gradually her strength came back. Today Mrs. Thompson is a well woman. She says, and the countryside knows, she owes her life to Dodd's Kidney Pills.

If the disease is of the Kidneys, or from the Kidneys, Dodd's Kidney Pills will cure it.

Tell Us Which of These Cultivators You Need

The variety of Cockshutt Cultivators is wide enough to meet every farming condition in Eastern Canada. We show three designs in this advertisement, which will meet the requirements of most farmers, but if you would like to know our whole line, we will be very pleased to send you our big illustrated Catalogue—Free. Write for it to-day.



Diamond Point
Cultivator

Diamond Point Cultivator

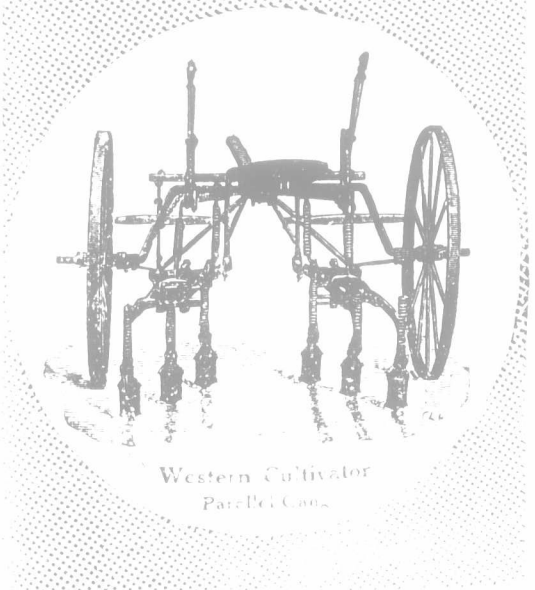
For an all-round general service cultivator you will find our Diamond Point an excellent tool. No need to inquire about the quality of the materials and workmanship—these essentials are always well taken care of in the Cockshutt factory. The Diamond Point can be had with one or two levers as desired. You will notice that we have made the frame fairly lengthy so that trash will not clog at the rear. The two wheels make them steady running and the long handles give the operator easier control. All the adjustments are made as simple and perfect as possible—there are no complicated parts to get out of order. We can furnish all sizes of teeth for this cultivator.



Western Cultivator
(Spring Tooth)

Western Cultivator (Spring Tooth)

The centre illustration shows our Western Spring Tooth Cultivator, which is especially useful in the corn field. Can be readily adjusted for field work by connecting a centre attachment which we supply with each cultivator at small cost. Really four machines in one—a corn cultivator, bean cultivator, field cultivator and bean harvester. Pressure can be applied to each gang to make it stir and turn the soil no matter how hard or dry. Reversible blades with wide and narrow points go with each machine. We can also supply wide weeder blades if desired. Here is an implement that will stand up to its work anywhere in Canada. Give it a chance to prove its value on your own farm.



Western Cultivator
(Parallel Gang)

Western Cultivator (Parallel Gang)

Where the land is inclined to break up in lumps we recommend the shovel teeth style of our Western Cultivator. Pressure can be applied to each gang to make it take a firm hold of the hardest ground. Where four teeth are wanted in each section, another arm can be had. We can also supply break pins, or spring trips and centre attachment for field cultivator. We also build the ordinary shovel gang for those who prefer it, which gives you a choice of three styles of gangs—the same carriage for each.

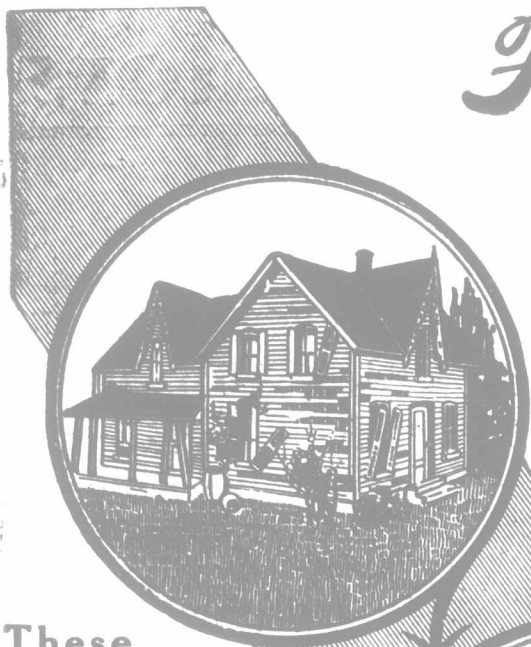
Be Sure You Buy All Your Farm Implements
From The Cockshutt Catalogue — It Pays.

COCKSHUTT

FLOW
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For nothing I will tell you all about Cement



These pictures show you plainly how simple a matter it is to change a decrepit frame house into one of cement-stone.



YOU pay nothing for what I tell you.

And the reason I offer you my services for nothing is simply that the companies that employ me want the farming community awakened to the value that cement—of the right kind—has for every farmer. Even if they never sell you any cement, they want you and your neighbors to be informed on the uses of cement—and the ease and simplicity with which you can cheaply use it.

No High-Priced Labor Necessary

I can soon show you that it does not require an expensive mechanic to use cement-concrete instead of lumber for ANY purpose. I make the whole subject so plain and simple that you yourself could easily renovate your frame house, barn, hen house, wagon shed. I will tell you how to make a hundred farm-utilities from cement quickly and cheaply—more cheaply than you could with lumber. And bear in mind the fact that you are charged nothing for this "Education in Cement-Using." You will not be bothered to buy anything, either. There are no "strings" to this talk of mine—not one. Just write me and ask questions.

Cement Endures—Lumber Decays

That alone is the biggest reason why you should overcoat your house and barn with cement, as I will tell you precisely how to do. Cement is almost indestructible. Buildings exist in Great Britain and elsewhere that were built of cement over the Romans two thousand years ago. For cement is like used, as I will show you how to use it on any structure, fire proof, wet proof, dry proof, warmer in winter, cooler in summer. And it is ECONOMICAL, much more so than any other material, since use out of

You may have my expert advice without charge. I can save you considerable money.

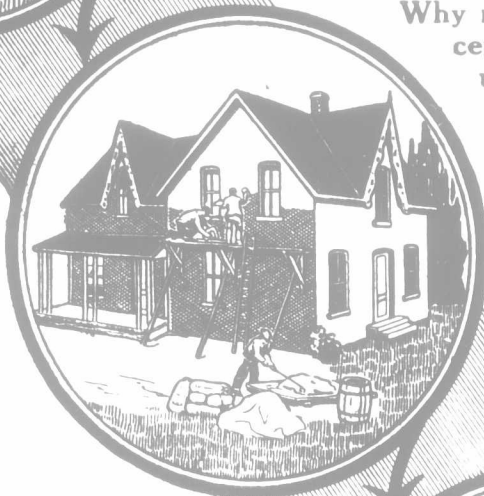
I charge nothing.

For the asking, you are welcome to use my knowledge. You can inform yourself fully on the whole big question of the use of cement for practically every use you are probably putting lumber to now. I will instruct you fully, in plain language, in the use of cement for making anything from a fence-post to a dairy-barn. And I can show you how to save money by using cement for any building purpose instead of using wood. Simply tell me your name and address and mention what sort of a structure you think of building or repairing—whether a residence, a poultry house, or even a drinking-trough.

You have nothing at all to pay for the advice and instruction I will promptly send you. Write to me before you buy another bill of lumber for any purpose. Be sure to.

Alfred Rogers
THE CEMENT MAN

Why not write me to-day? Accept my free services, make use of my knowledge to any extent; and you will not be under the least obligation or expense if you do. We want you to KNOW cement; and I will do all I can to help you KNOW it.



Verandas
Box Stalls
Driveways
Fence Posts
Well Curbs
Feed Yards
Barn Floors
Cellar Walls
Root Cellars
Horse Blocks
Chimney Caps
Chicken Houses
Watering Troughs
Curbs and Gutters
Windmill Foundations
Storage Water Tanks

Read This List of a Mere Few of the Uses Cement has on the Farm

Then write to me for particulars of how to build these things from cement, and the work you can do if you like, in spare time. Don't wait to write, as you are not just ready to make any improvement on your buildings. Talk it over with me, and I will send you a report on a lot of things that you can do with cement. I can give you a list of things that you can do with cement.

ALFRED R

307 Stair

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THE CEMENT MAN