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THE FARMER'S ADVOCATE

AND HOME MAGAZINE

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SUCCEED
FOUNDED 1877

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

D. K. Poberty, Publisher
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VOL. XLVIII.

LONDON, ONTARIO, JUNE 12, 1913

No. 1081

TAKE a good look at this immense plant. It is the home of the **Canadian General Electric Company**. As you can easily see, it represents a very large investment. And—protect their property—make protection doubly secure—the Company's managing officials specified the most durable roofing on the market, viz:

Brantford Roofing

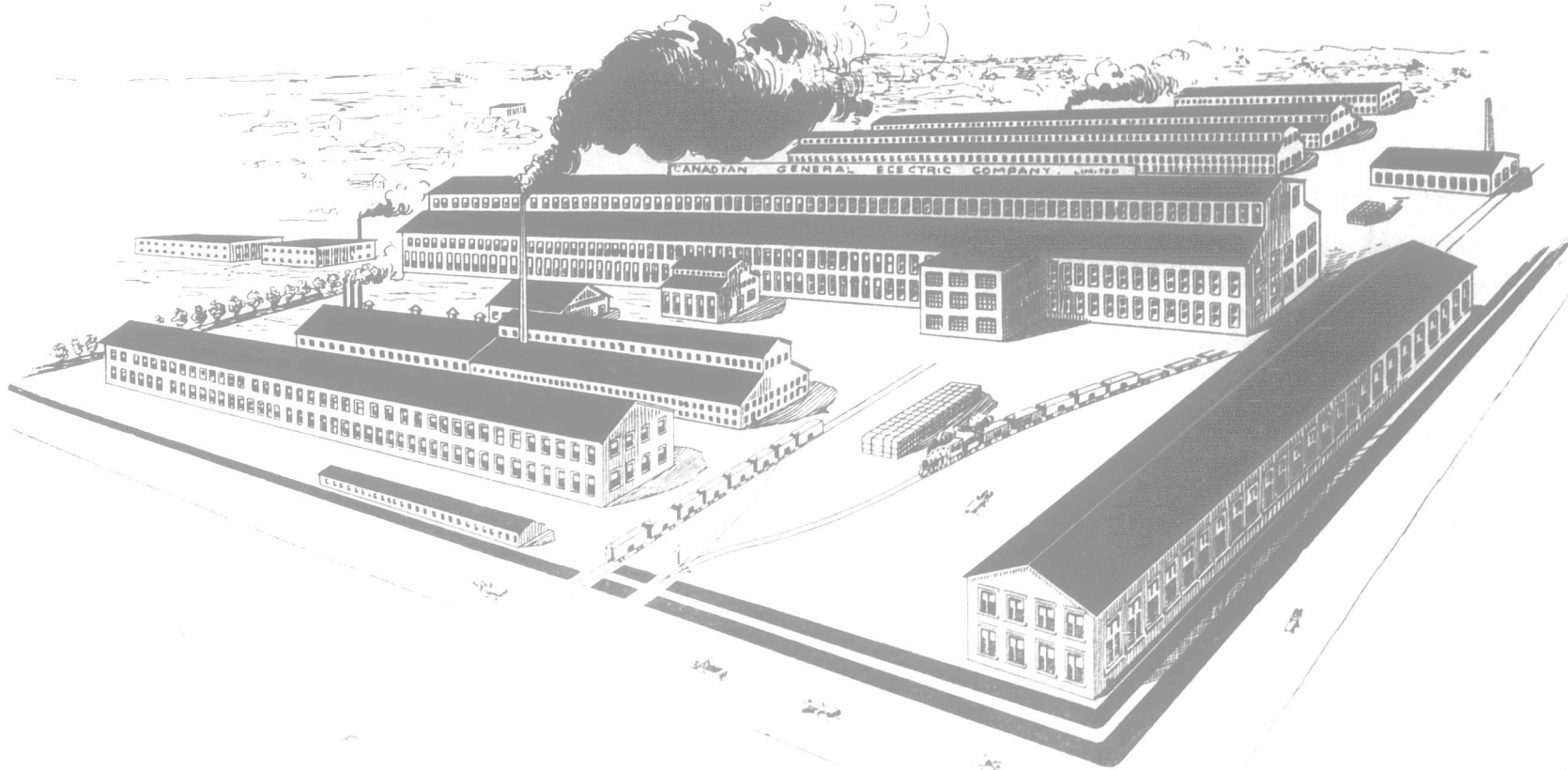
These shrewd business men chose **Brantford Roofing** after serious investigation. If they could have discovered a **more indestructible** roofing they would have used it. Because—they knew that the roofing of their plant would be subjected to the almost **ceaseless** attacks of roofing's worst enemies—**Acids** and **Fire**.

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 NOW IF YOU HAVE A PIECE OF LAND THAT WONT GROW ANYTHING BUT WEEDS, TALK WITH US ABOUT IT AND LET US SUGGEST THE RIGHT FERTILIZER
 WE FEEL VERY SURE THAT WE CAN SHOW YOU HOW TO USE FERTILIZERS WITHOUT GREAT EXPENSE SO YOUR LAND WILL PAY
 CONSULT US FREELY IT IS OUR BUSINESS TO KNOW ENQUIRIES FREELY ANSWERED AGENTS WANTED FOR TERRITORY NOT TAKEN UP
 THE W.A. FREEMAN CO. LIMITED
 HAMILTON ONTARIO

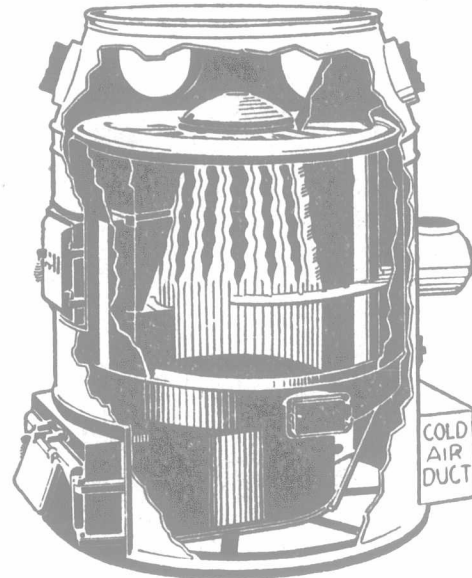
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HOMESEEKERS' EXCURSIONS
 Each Tuesday, until October 28
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EDMONTON AND RETURN \$43.00
 Other points in proportion.
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This extra weight is built into a Kelsey to give it more heat-radiating surface.

It has 61 square feet of radiating surface for one square foot of fire-grate surface.

A Kelsey heats larger volumes of air than an ordinary furnace, and does it with less coal.

Because a Kelsey consumes about one-third less coal than

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A house heated with a Kelsey is worth more to live in and will rent or sell for more money.

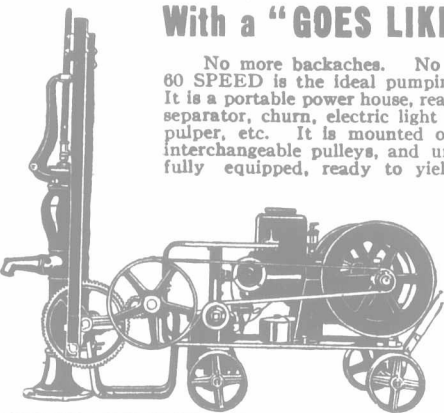
The cost of a Kelsey is small when the saving in coal bills and repairs is considered.

This economical heating system is fully described in our booklet, "Achievements in Modern Heating and Ventilation." Send for it. 5

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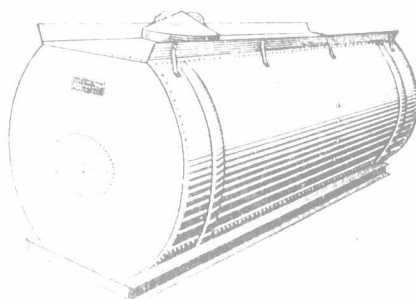


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2 IN 1 Is good for the Leather It keeps out the Weather
SHOE POLISH
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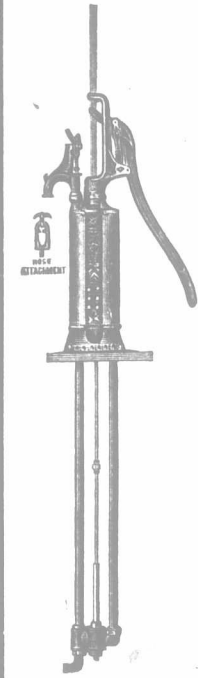
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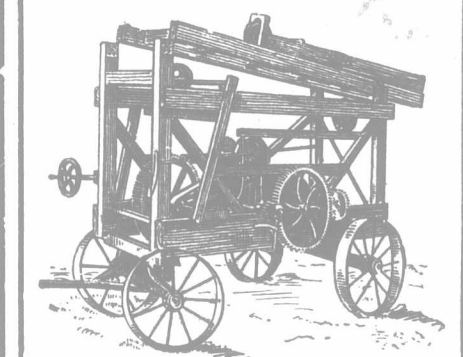


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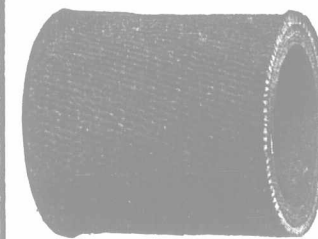


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Concrete roads are within the reach of every community—the first cost is very little more than that of a good macadam road; the ultimate cost is infinitely less.



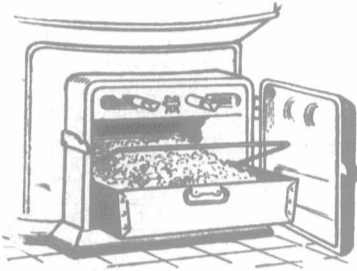
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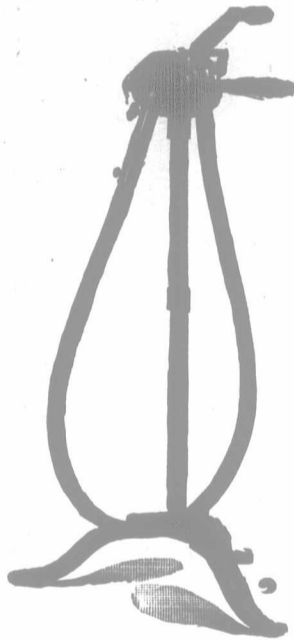
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**CLIP YOUR HORSE IN
THIRTY MINUTES**

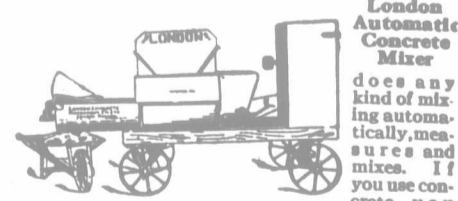


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**"BURMAN"
HORSE
CLIPPER**

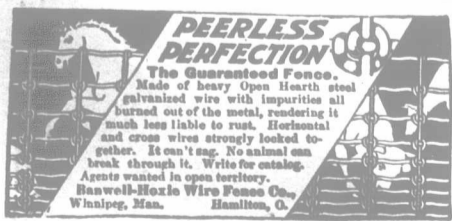
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Be Your Own Judge

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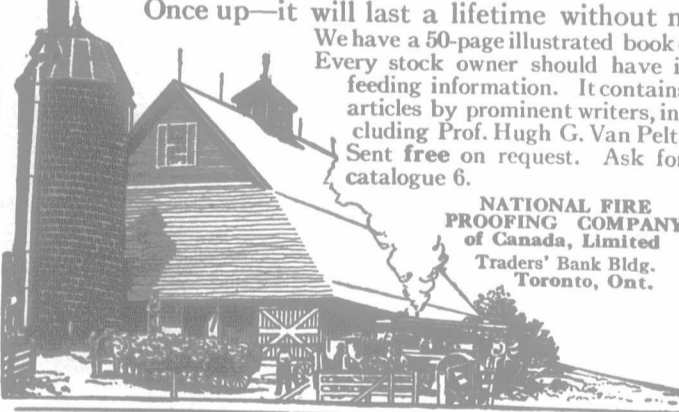
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The Most Successful Drilling Machine Ever Operated in Canada.

Perfect pipe driving and pipe pulling attachments.

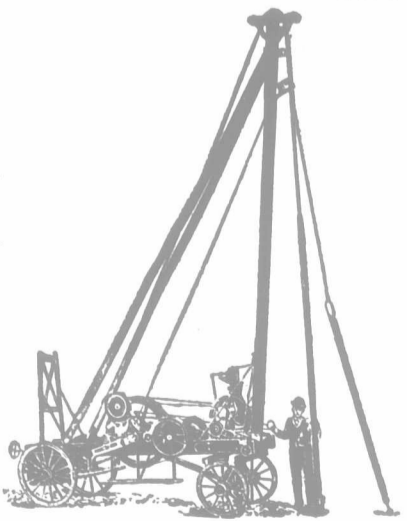
Catalogue and full particulars on application. Local agents wanted.

\$6,700 in six months earned with one of our machines.

Well casing carried in stock.

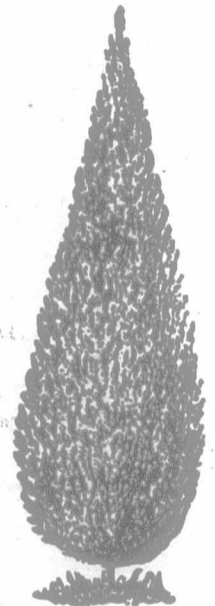
Listowel Drilling Machine Co.

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Sta-Rite Gasoline Engines are sold by agents with a binding guaranty.

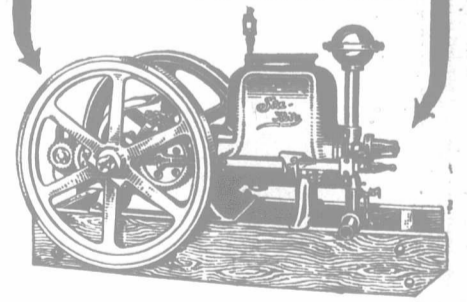
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Empire Cream Separator Company

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VERY FEW

Young farmers starting out are fortunate enough to have their land and buildings free of any indebtedness, such as a mortgage. Now what would become of the property should the owner die? It would in all probability go into a stranger's hands. Why not safeguard against this by carrying sufficient Life Insurance. An Endowment Policy with

**The Federal Life
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Will protect those dependent upon you, and in after years make a welcome supplement to your income.

Head Office: Hamilton, Ont.

The Farmer's Advocate and Home Magazine

PERSEVERE
AND
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ESTABLISHED
1879

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VOL. XLVIII.

LONDON, ONTARIO, JUNE 12, 1913.

No. 1081

EDITORIAL.

Make war on all noxious weeds at this season.

The better our farm methods, the less dependent we are upon weather conditions.

In some localities of Western Ontario the white-grub pest has become a menace. Old pastures breed them by the million.

Keep a dust mulch on the summer-fallow and hoe-crop land. It conserves moisture and ensures a better crop.

During the next week or two is a good time to sow some turnips. Even though a good crop of corn is expected, a few roots can be used to good advantage.

Official testing of pure-bred dairy cows, under the Canadian Record of Performance, is increasing with such rapidity that the Live Stock Branch can scarcely keep up with it. More inspectors are being added every year.

United States President Wilson has issued a trumpet blast against the tariff lobbyists at Washington as being "numerous, industrious and insidious." The latter two of those characterizations would apply to lobbyists everywhere.

The lobby of the Big Interests, which use both political parties as suits them, must be resisted by independence of thought and action among the electorate. Rules against lobbying would probably be of little avail. An irresistible force of unfettered public opinion is the best corrective.

The season for fitting stock for the fall exhibitions is at hand. Here is where the skilful feeder scores. A novice cannot bring his stock out in the bloom to do themselves credit, and he runs far more risk of ruining his animal's usefulness as a breeder. The putting on of all the finish that the animal will carry and doing it without injury to it, is one of the fine points of the game which it takes time to master, and many animals still prove non-breeders because of being overdone.

Thoroughness often counts for more than method. We once heard two experienced Ontario farmers discussing the best time for corn planting. One always planted his about the first of May; the other about the first of June. One wanted to gain time and was willing to risk having his crop cut by frost, claiming that it always came on again and beat out the later-sown. The other wanted the ground warm, and depended upon a rapid unchecked growth. Both claimed to have usually raised the best corn in their respective neighborhoods, and both laid much stress upon their time of planting. Two extremities had thus been sanctioned by experience. Perhaps the real secret was not the date of planting at all, but rich soil, good seed and thorough cultivation. Experience does not always prove what it is taken to prove.

The Bankers' Lobby at Ottawa.

If the revision of the Bank Act accomplished little else, it has, at least, served to bring out in bold relief the methods of the parliamentary lobby. Patient, ingenious and clever, suiting its action on the principle of all things to all men, it often succeeds when it seems to have failed. Legislation has a long and tortuous course through parliament. If one move fails the representatives of the Big Interests have plenty of chance to try another. And they do try every move from the Committee stage to the Senate. Catch the wary lobbyist leaving Ottawa before the last dog is hung! It is a most tremendous force of public opinion that cannot be at least partly euhred out of its purpose by a sufficiently adroit lobby. The revision of the Bank Act is a case in point. While the bill was under discussion in the Banking and Commerce Committee, the Bankers' Association was represented at Ottawa by five eminent King's Counsel and several parliamentary agents. As a rule they did not show their hand too conspicuously, but were always ready with a timely word or suggestion to talk members privately into line and keep tab on their attitude. When the division bells sounded their whip was on hand to fill the back benches with members who seldom attended the sittings. These back benches were usually numerous enough to turn the scale when progressive clauses were being voted upon, and when the bill emerged from the Committee after weeks of evidence and consideration, it embodied very few additional amendments of importance. Nor was it much improved by the Committee of the whole House. To his provision for a compulsory shareholders' audit, the Minister of Finance added a stipulation that the auditors should be chosen from a selected list approved by his department. Major Sharpe was so well satisfied with this plan that he dropped his amendment proposing a court or commission and no one else took it up, notwithstanding that public opinion has been asserting itself in favor. Another amendment, whose passage was probably assisted by Mr. McArthur's testimony before the Committee, forbade bank officials to accept presents of stock from companies whose operations they were financing. There was a provision requiring that a detailed statement of the financial condition of the bank be submitted to the shareholders annually, another requiring the sterilization of notes before re-issue, and one requiring the banks to maintain registry and transfer offices in every province where they do business. The concessions thus gained by the public were not much, but they were in the right direction. However, the bill has still to run the gauntlet of the Senate, that hoary bulwark of vested interests. The Senate amended it by cutting out the last three concessions, and on the return of the bill to the Commons the Minister of Finance condoned and accepted the changes, most of the government and nearly all the opposition members voting to sustain the Senate's amendments. This left the bill only a little better than the Bank Act of twenty years before. It is still very largely "a Banker's Bank Act."

Let no one suppose, however, that ground has not been gained. The public has just begun to awaken on the question, and by resisting the just demands of the people the Bankers have stimulated a force of opinion which may seriously curtail their privileges at the next revision, if not

sooner. Already it is making itself felt. As the Ottawa despatch in the Toronto World put it: "Growing dissatisfaction with the failure of parliament to deal with the grievances of the people when revising the Bank Act was evidenced in the House of Commons by a somewhat sensational debate, and a vote which cut a zig-zag line across the two political parties." The debate was characterized by very plain speaking. Arthur Meighen, a prominent government supporter, deplored the easy access which the lobbyists had to members of parliament, and believed some restriction would have to be placed upon their activities. When the Bank Act was before the House, he understood, the solicitor of the Banks sat on the floor of the Senate inside the rail, interrupting and interfering with the members of the Senate who desired to discuss the bill. J. B. Taylor said the lobby had been very active and persistent in the Banking and Commerce Committee and the corridors of the House. "We know many of these gentlemen by sight," he said, "and their activity has been very remarkable."

F. B. McCurdy, who has put up a splendid fight on the public behalf, complained that nearly every progressive amendment offered in the Committee had been voted down by members brought in for that purpose. Mr. McCurdy urged the appointment of a Monetary Commission to study the Banking and Currency situation, with a view to getting a better Bank Act than we now have. W. F. MacLean also favored such a commission.

Another significant statement was that of Hon. Mr. Oliver, who asserted that it took courage for a member to declare on the floor of the House where he stood on the banking question. A member took chances in opposing the banks.

Such, then, is the situation admitted by the more candid members. With fine-spun definitions of lobbying the public have no concern. It may not be lobbying, for instance, when an avowed corporation counsel, sitting on the floor of the Banking Committee, writes out questions and hands them to a sympathetic member to ply witnesses with, but it is a means of serving privileged interests all the same. However, it is all over for the present, and, having drawn attention to the means by which the popular demand was resisted, we may content ourselves with mentioning the names of the eight government and two opposition members who voted to resist the Senate emasculatory amendments:

Bennet (Calgary), Buchanan, Emmerson, MacLean (South York), McCurdy, Meighen, Nickle, Sexsmith, Stevens, Taylor.

About Weldwood.

From several quarters a desire has been expressed that we publish more about our own practical farming operations. We had feared that readers were being bored with references to Weldwood but it seems not, so far, at least, as the localities in question are concerned. Fortunately it is convenient to oblige, for there is no subject easier to write about. We do object, however, to publishing scrappy discursive notes about things in progress. We like to give facts and figures about improvements made, crops raised, or stock fed, and it takes time to summarize accurately data of this kind. However, we expect to have considerable material in the near future. Much work was done on the farm

The Farmer's Advocate AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL
IN THE DOMINION.

PUBLISHED WEEKLY BY
THE WILLIAM WELD COMPANY (LIMITED).

JOHN WELD, MANAGER.

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

1. THE FARMER'S ADVOCATE AND HOME MAGAZINE
is published every Thursday.

It is impartial and independent of all cliques and parties,
handsomely illustrated with original engravings, and fur-
nishes the most practical, reliable and profitable informa-
tion 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,
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12. WE INVITE FARMERS to write us on any agricultural
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Contributions sent us must not be furnished other papers
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matter will be returned on receipt of postage.

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THE WILLIAM WELD COMPANY (LIMITED),
LONDON, CANADA.

last summer. A house was built, also a dairy and ice house, and a round cement water tank for barn supply. An orchard of 350 trees was planted; five hundred rods of woven-wire fencing erected, and erected well; a couple of miles of old fence were torn down, and the fence bottoms cleaned up; eight acres of bindweed was summer-fallowed, being cultivated eighteen times to a depth of about four inches. Sundry minor improvements were also effected. This meant hard work, especially in a season such as last year when it was difficult enough to dispose of ordinary farm duties. Crops last year were fair on the average. Hay was good, yielding some eighty-five tons. Spring grain started well, but grubs and wireworms played havoc with some of it, the land having been plowed the previous year out of old pasture. The season was too wet for corn on close-bottomed clay soil, such as most of ours. Still we had a fair crop of ears, and, on part of the soil that was warmer and better drained than the rest, quite a heavy crop of both ears and stalks. Live stock did pretty well last winter, and is especially thrifty this spring. Quite a legacy of weed and insect pests were obtained with the farm and in addition an unusual combination of seasonal and other difficulties were encountered on the start. These have been surmounted one by one, and the farm is being placed on a satisfactory running basis. We know this will be gratifying to our numerous friends. Fuller particulars later.

A Bank Manager's Will.

The will of the late Sir Edward Clouston, president of the Bank of Montreal, should be quite an encouraging document to branch-bank managers with prospects of some day attaining responsible positions at the head office. Born in Moose Factory, Sir Edward managed to accumulate quite a fortune. His estate of \$2,672,005 included \$2,109,748.92 in stocks and shares, some

of the eighteen or twenty companies, including Canada Cement Co., Canadian Salt Co., Mexico Tramways Co., Mexican Light and Power Kaministagua Power Co., Consolidated Mining and Smelting of Canada, Ltd., Canadian Pacific Western Canada Power Co., Royal Trust Co., Laurentide Co., Canada Sugar Refining Co., West India Electric Co., Ltd., Prince Rupert Hydro-Electric, Dominion Textile Co., American Smelting and Refining, Canadian Cotton, and 500 shares in the bank of which he was president.

The number of companies in which the late Sir Edward was interested not only indicates industry in acquiring stocks, but illustrates how far a leading banker's influence may, and frequently does, extend.

Party System Getting Out of Date.

Pleading for an organized democracy to supplement the old system of opposing political parties, Frank Crane, in the June Forum, says several things that are good enough to quote.

"A political party is not an organization of the whole people. It is composed of a part of the people presumably united by common principles. Experience has shown that these principles under actual working flatten out into platitudes, and that the main cohesive power is that of public plunder. The change from Taft to Wilson took place without a jolt to government or a flutter in the stock market; because the people had no definite conviction that the transfer would result in anything beyond the fact that in some way the change would do us good."

"The claim of the party to be a practical organization of the people is deceptive; it is due to a lack of organization. If the people were organized, there would be no parties such as we have."

"The party system proposes to run a popular government, to bring to pass the will of the people, by organizing complete groups, by class war and sectarian strife. It is the worn-out principle of competition applied to government."

"What we really have children in school for is that they may be prepared for life. And to this end it is vastly more important that they develop a civic conscience, and that they be schooled to get what they want in an organized way, that they learn Caesar's Commentaries and the integral calculus."

"Look about you! The people everywhere are swindled, browbeaten, preyed upon by privileged men or companies. They don't know how to get their rights. They are pushed about like 'dumb, driven cattle.' They stand with their mouths gaping open while the sons of privilege go through their pockets. Will party organizations remedy this? They never have remedied it. They never will remedy it."

To sum up, political parties have had their day and ought to go, as being hollow, empty shells. In their places put Organized Democracy. Secure this by, first, making people see the need and practicalness of it; then by developing civic conscience by our educational system, and drilling the children in self-government."

Nature's Diary.

By A. B. Klugh, M. A.

There is at the present time a little denizen of our woods which draws the attention of every rambler, whether he be a nature student or not. However little we are inclined to observe him we are forced to do so. I refer to the mosquito.

The abundance of this little pest varies a good deal in different parts of the Dominion. In the woods along the Atlantic coast it is present in comparatively small numbers, in the bush of Northern Ontario it swarms in such multitudes as to render life almost unendurable.

The adult mosquito passes the winter in some sheltered location, and in the spring the female deposits her eggs in the form of little boat-shaped rafts on the surface of stagnant water. These eggs hatch in a few days, the exact time depending upon the temperature, the hatching being quicker in warm weather.

The young mosquito, now termed the "larva," escapes from the bottom of the egg into the water. It is a small, rather elongated, creature, which lives with its head downwards and breathes through a tube at its tail end. After a few days it changes to a "pupa," a peculiar, "bull-headed" form, with breathing tubes at the sides of its immense head. It usually lies at the surface of the water, but if alarmed it wriggles downwards.

The pupa soon changes to the adult mosquito,

and flies away, "seeking what it may devour." The normal food of the mosquito is the juice of plants, and all those people who frequent the woods during the early summer wish to goodness it would stick to its normal food. The males are quite content with their diet of plant juices, but the ferocious females add a feast of blood to their menu whenever possible. The mouth parts are differently formed in the two sexes, only those of the female being adapted for puncturing so tough a substance as the human skin. It is easy to tell the males from the females as the former have plume-like antennae, or "feelers," while the latter have only hair-like antennae.

The irritation resulting from a mosquito "bite" is due to a liquid which is injected into the puncture, the function of which is to keep the albumins in the juices upon which it feeds from coagulating or clotting, and thus blocking up the fine tube through which it draws up the juices.

The effect of this fluid upon different people varies a great deal; in some it only causes a slight irritation; in others it causes great inflammation and a large swelling. Some people are even rendered seriously ill if they receive many bites. Residents of regions where mosquitoes abound, get more or less inoculated by the constant injection of the fluid so that the bites cause them very little inconvenience.

The mosquitoes in the interior and on the coast belong to a different species; a common form on the coast being the salt-marsh mosquito. It is a peculiar fact that a person who is practically immune from the effects of the one species may be seriously affected by the bite of the other.

Those of us who love the woods at all seasons have to find a way to prevent our lives being made miserable, while in our favourite haunts, by the mosquito, and the most effective protection I have found to be the application of a "dope" made up as follows:

Oil of Pennyroyal.....	1 part
Castor oil.....	2 parts
Oil of tar.....	3 parts

This "dope" is not the cleanest preparation imaginable to use, but it is mighty effective, and washes off readily with soap and hot water. There are many other preparations which I have tried, and a very pleasant one to use, and quite effective when the mosquitoes are not very numerous or ferocious, is Oil of Citronella.

There are many things which may be used to allay the irritation of the bites, probably the best being liquid ammonia. Some find that the juice of an onion rubbed over the bites brings relief, and baking soda is often useful.

From what we have seen of the life-history of the mosquito we know that it cannot breed except where there is stagnant water. This gives us a hint as to how to reduce the number of these pests; that is, to get rid of all the standing water possible by the draining of ponds, etc. The rain-water barrel is a great breeding place for mosquitoes, and should be kept covered with wire netting.

In parts of New Jersey the mosquitoes were at one time so bad as to render these regions practically uninhabitable; but now these same places are summer resorts. This result has been obtained by draining of pools and by pouring crude petroleum on the marshes which could not be drained. The crude oil spreads out in a thin film over the water and prevents the larvae and pupae of the mosquito from breathing.

HORSES.

Don't forget the oats for the sucking colt.

Keep the mare's milk flow up by liberal feeding.

A day's work for the gelding is often a day and a half for the mare suckling a foal. She should not be over-heated or fatigued.

There are those who believe that a six or seven-hour work day is enough for the mare with a colt, and that more than this will prove a loss in that it will injure both mare and foal.

Many farms could well afford to sell the high-priced geldings and fill their places with big, sound brood mares. These mares will do the work and raise colts as well.

In a decade of draft-horse-breeding success a western horseman writes: "I have found though that in horse breeding, feeding and management is not the only and big feature. Getting the right sire and sticking to one breed and even

one type, I now consider absolutely essential and the greatest factor in horse breeding."

The best way to gain knowledge of the horse or any other business is from practical experience. If your neighbor has exceptionally good success with horses, visit him frequently, encourage him to talk "horse", and thus draw him out until you have learned his methods. Select from them the best, improve upon them where possible, and make success the goal.

It pays to take a pride in a good team. We recently read of a man who was asking a certain price for a span of good drafters. His neighbors thought it too much and made light of such a price, but through keeping the horses in extra fine fit, weighing and measuring them from time to time, and letting dray firms in the neighboring cities know what the horses were doing, he succeeded in getting his own price in a very short time. It paid.

Navel-ill takes some colts, even though great care has been taken to keep antiseptic on the umbilical cord for a few days after the colt is foaled and stables are kept very clean, but the man who knows that an antiseptic such as carbolic acid in ten per cent solution is generally effective in preventing the disease if promptly and regularly applied until the cord dries up, has himself to blame if he neglects to prepare a little of the solution and the colt falls a victim to the most dreaded foal ailment.

Percentage of Foals.

Grooms and stallions are sometimes wont to brag a little about the large numbers of mares which are served by their stallions. It is remarkable how much stock is placed in this. Of course it may have some little value, because if a large number of good horsemen think him a good enough horse to be the sire of their season's foals, he must have some good points about him. But the fact that he breeds 200 or 250 mares each year, is not the main indication of his value. "How many colts does he leave each year, and what kind of colts are they?" This is the true measure of his breeding value. What is a good percentage of foals from mares bred? This is a question in which all horsemen are interested. If you have authentic figures to show what a horse has done, we would be pleased to get them.

In this issue is illustrated a three-year-old Clydesdale which, last year in his two-year-old form, covered fifteen mares, and got fourteen with foal or 93.3 per cent. This is a good record even on so small a number, but it is away above the average, and it can hardly be expected that the horse will keep up this high percentage when bred to a large number, say 150 mares annually. His success looks like a point in favor of limiting the number of daily services. There is little doubt but that many horses are injured by over-crowding in this respect.

An example of what an older horse in the heaviest seasons has done may be noted. The late McQueen, a one-time very famous Clydesdale stallion in this country, served, from the years 1899 to 1906 inclusive (eight seasons) beginning at fourteen years of age and ending at twenty-one years, over 1,700 mares, and foaled 1,079 of them or a percentage foaled for the eight seasons of 62.8. Now this horse was well managed, but very heavily worked during the breeding season. Possibly he would have got a little higher percentage of his mares in foal had he not had quite so many, but, of course, of this we cannot tell. However, the fact remains that, sure as this great old horse was, over 37 per cent of the mares bred to him in the eight years failed to conceive, possibly through no fault of the horse. We understand that between thirty and forty per cent of the draft mares bred in Great Britain each year do not conceive, no doubt partly due to the horses and partly due to the mares themselves. It would seem that if a stallion gets from 60 per cent to two-thirds of his mares with foal, he may be reckoned fairly sure. Many get less than fifty per cent. It is McQueen's record proved one other point. It is often heard said that an old horse is not generally as sure as a younger, more active animal. This is true where the older horse's usefulness has been injured by improper care, but with the best of care and an abundance of exercise McQueen was as sure at twenty-one years of age, and even older than that, as he ever was. There is no reason why an old horse should not prove a sure foal getter if he has been handled as he should have been. This question of percentage of foals is interesting, and worthy of the thought of both stallion and mare owners. Both should endeavor by the judicious care of their animals to keep them in the best condition to fulfil the requirements of reproduction.

Watch the Mare.

Although it is getting late in the season there are still many mares which have not foaled. Most horsemen of experience realize the importance of being on hand ready to render assistance if necessary when the critical time arrives, but every year we hear of several colts having been lost through their inability to rupture the foetal membranes and get the supply of air so essential to life. As soon as the foetus is expelled and the umbilical cord is severed, the colt's supply of oxygen, which has hitherto been obtained from the circulation of the dam's blood through its vascular system, is cut off, and it is absolutely necessary, if life is to be retained in the body of the newly-born foal, that the oxygenation of the blood be commenced immediately through the natural sources, the openings leading directly to the lungs. In short, the colt must be able to breathe pure air or life is extinct in a very few minutes. If an attendant is at hand when foaling commences he can see to it that all danger of loss from this cause is promptly removed by rupturing the membrane himself.

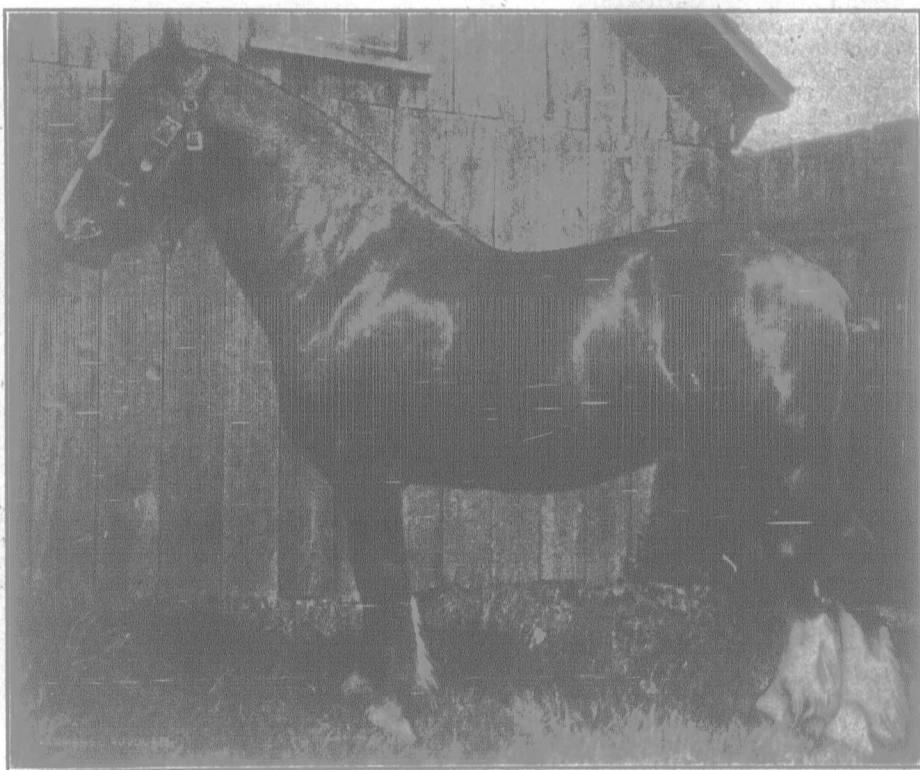
Again, the colt may have been foaled all right, the enveloping membranes may have broken easily, and yet it may not have had sufficient strength and vitality to gain its feet and obtain a little of the colostrum of the dam so necessary to maintain and increase its vigor. Colts have very often been lost from this cause, when, if an attendant had been on hand, the young life might easily have been saved.

The Importance of the Walk.

With the great majority of horses the gait most valuable and of greatest use is the walk. In fact this is true of all horses. If the horse walks right he is far more likely to trot or canter well, than if he is defective at the walk. The walk is the most neglected gait in the training or "breaking", as it is more commonly called, of our horses. The colt is hitched and allowed to slouch along for a little while at a walking speed, and then is "whipped up" to a trot, and kept at it for nearly the entire time that he is hitched. The greater part of the work done, especially by a heavy drafter, is accomplished at a walking gait, and this applies even more particularly to the farm work horses which very seldom, after they have gone through a meagre training or breaking, are required to go faster than a walk. It is very essential that they turn out to be good fast walkers, and that they go straight and true, for they must often move heavy loads.

A good deal of this good virtue may be instilled into the animal during his early training. Never should the colt be allowed to slouch. From the time the harness is buckled on and the lines are drawn over his back and he is commanded to start, he should be made walk as fast as he can. It is not wise to ask him to trot in the beginning, but do not hesitate to urge him to his best walking gait and keep him at it. Very often a fast-walking, older horse is available, and where such is the case it is a good training for the green youngster to place him beside the fast walker, that what is expected of him may be the more clearly shown him. As a rule more care is taken in "breaking" the light horses, roadsters, coachers, or saddlers,

than is given on the early training of the big, often clumsy-looking draft colt. This may, to some extent, be required, but the draft horse has much hard, heavy, grueling labor to do in his short career, and it is important that he, by his early training, is best fitted to accomplish it with greatest ease to himself and to the best satisfaction of his owner. Teach him to take a fast walking gait in the beginning. Practice in this will cause it to become a habit not easily forgotten. As the horse becomes older in training he soon learns the slower gait required for such work as plowing, but even at this work a fairly smart gait is to be preferred to the very slow one which causes the plow or implement to run "dead." Teach him to walk right up on the bit, and in this way many "slouchy" habits are prevented.



Lord Gray (Imp.)

This fine three-year-old colt, by Iron Duke, is the property of T. E. & H. C. Robson, Ilderton, Ont.

There are scores of little things which may happen. The mare may have a case of difficult parturition or a mal-presentation may occur, and in either case an obstetricist is required. It is not always necessary that he be a professional, but he should have sufficient knowledge of what is required to do the work in hand to the best interests of mare and foal.

It may seem rather late in the season to make this hint, but it has been repeated year after year early and late, and just the other day a correspondent wrote to this paper saying his mare had foaled when no one was with her, and an apparently mature and normal colt when found was dead. Who knows but what the colt might have been saved had prompt attention been given? The loss of a foal is a serious matter in the year's business. Enough will die after getting the best of care. There is little excuse for neglect. Unless it is intended to take good care of the mare and to give the best attention at foaling, the risk of breeding is too great. The difference between care and carelessness is not so great that the average mare owner cannot, in all cases, put himself in the careful class. Very little extra effort is necessary, and the little sleep lost and the few hours of leisure time taken up in "watching" the mare is time almost always profitably spent.

LIVE STOCK.

Bleeding for Cattle Disease.

Editor "The Farmer's Advocate":
In your issue of May 29th I noticed that Mr. Young, a Middlesex county farmer, had three-head of cattle die very suddenly from a disease of which I have seen several cases, as many as five in one month. We tried several things, and the only treatment that proved effective was as soon as the animals show the disease to shut them up in a dry box stall and bleed them from the neck, taking one gallon of blood, and feed bran. We have never lost one after bleeding.
Huron Co., Ont. W. N. AUSTIN.

A very good case for lamb fattening can be made out from a comparison of the price of feeder lambs last fall and the finished product this spring. There is an opportunity in this branch of farming which should not be altogether overlooked.

Steers Proved Profitable.

H. A. Craig, writing in "The Farmer's Advocate and Home Journal," Winnipeg, Man., outlining the results of steer-feeding experiments in Alberta, is able to show a fair profit on the operations, even though prices were high last fall and not as high as expected this spring. Mr. Craig says:

During the season of 1912-13 there were 397 steers fed on four of the Demonstration Farms of the Province of Alberta at Vermilion, Olds, Claresholm and Sedgewick. All these cattle were range-bred steers from two to four years old. They were put into an enclosure about November 1st, and fed on an average five and a half months. The enclosure in each case covered an area of about one and a half acres and was protected on three sides by a tight board fence; eight feet high, besides this the horse and cattle barns afforded some shelter. The yards are fitted up with racks and tables, to feed both long and cut feed. The long feed was fed in racks attached to the board fence forming a V with the fence and made of 2 by 4-inch material placed about five and a half inches apart, similar to the feeding racks in railway stock yards. The cut feed and chop was fed in tables placed in the middle of the yard. These tables are about four feet wide with a two by eight-inch on each side, and a two by four-inch scantling on top of the two by eight-inch stuff forming a lip. This prevents the cattle wasting the feed.

On all the farms the cattle were fed cut green oat sheaves and chop twice a day, and at Sedgewick and Vermilion hay was fed for a portion of the time; at Olds the racks were kept filled with hay during the whole feeding period, and at Claresholm no hay was fed. Feeding chop was commenced by giving about four pounds per head at the beginning of the year. This was increased as fast as the animals would stand it, until they were on full ration of about 14 pounds per head. The chop consisted of two-thirds oats and one-third barley, though some wheat was supplied in place of the barley. This chop was coarsely ground and mixed with the cut feed. Plenty of salt and heated water were kept before them all the time.

The conditions under which the cattle were weighed in and weighed out at the different farms vary very greatly. The Claresholm and Olds cattle were bought at Grassy Lake and weighed full off the range before shipping. Both of these bunches of cattle were weighed at the C. P. R. stock yards at Claresholm and Olds respectively when sold. The Vermilion cattle were weighed in on the Vermilion stock yards full off the range, and in selling were weighed off cars Swift Canadian Co.'s Packing Plant, Edmonton. The Sedgewick cattle were bought at Camrose, and weighed full on the C. P. R. stock-yards scales before shipping. They were sold weighed over the farm scales with a five per cent. shrink. The Vermilion cattle were twenty hours on the cars, about twenty-two hours out of the feeding yard, before being weighed. They were weighed at the farm two weeks before shipping and averaged 1,473 pounds. At the packing plant they averaged 1,375. Allowing for 15 pounds gain in two weeks the shrink would be 115 pounds. Before comparing the net gain in weight per steer at the different farms the conditions under which the various cattle were weighed in and weighed out must be taken into consideration, so that a fair comparison can be made.

On the whole the steer-feeding work this year has proven very satisfactory. The price was high when the steers were brought in, and the prices in the spring were not quite as high as anticipated, owing to the fact, that a lot of Eastern beef was shipped on to the Western market. However, even with the small margin between the cost price and selling price, the gross profit of the feeding of 397 steers was \$13,091.10. Market price is charged for feed when grown on the farms. The greater part of the feed was grown on the various farms.

No account has been taken of the manure, and it would perhaps be fair to credit the steers with this, as the manure is all being applied to the land.

Our experience this year has taught us, first, cattle will not only put on greater gains, but will do it more economically if bought close to the feeding place, and driven in rather than buying at a distance and shipping by train. The journey seems to excite the animals and prevents them from making good gains in the early part of the feeding period.

Second. We are convinced it pays to cut all the green sheaves, and if hay can be secured at moderate cost it will pay to keep the racks full of hay during the whole of the feeding period.

Third. It is important in feeding a bunch of 100 steers that the steers which are not doing well after one month's feeding be cut out and sold to the butcher at market prices. In every bunch fed during the last two years at the Demonstration Farms we have found that there

are from two to five steers which do not pay to feed until spring. In one case this year a steer weighed in at 1,155 on November 1st, and on April 21st weighed out at 800 pounds.

A full statement of the results shows that 104 steers weighed in at Vermilion at 129,460 lbs., and gained in weight 12,990 lbs., including two which died and two which are kept over. The increase in weight was 128 lbs. per steer. These steers were bought at 5½ cents per pound or \$6,796.65; this with \$307.31 interest on the note, and \$1,493.00 for feed including everything and \$407.45 for labor, brought the total cost up to \$9,005.61. The steers brought 7½ cents when sold, and together with the increase in hogs following brought \$10,826.19, or a net gain of \$1,820.58; a net gain per head of \$17.50, and a gross gain of \$38.74 per head.

At the Sedgewick farm 106 steers gained 21,109 lbs. These steers cost, including freight, interest, feed and labor \$9,565.81, and sold for \$10,053.88; leaving a net profit of \$488.07 or \$4.60 per head, and a gross profit of \$29.36 per head.

At Olds 105 steers gained 163 lbs. each in weight, cost, everything included, \$10,890.63, and realized at 7½ cents per pound \$11,856.75; leaving a net gain of \$966.12 or \$9.20 per head, and a gross profit of \$36.83 per head.

At Claresholm 82 steers gained 14,710 lbs. cost \$8,332.16, and realized \$9,244.97. A total net gain, all expenses being charged, of \$912.81 or \$11.13 per head, or a gross profit of \$37.20 per head.

Cattle in Ontario were put in at from \$5.50 to over \$6.00 per cwt., and sold out, in most cases, at a little less than \$7.00, although a few extra choice cattle made as high as \$7.32 or \$7.35. If profit is to be made a reasonable margin of spread is necessary, but these experi-

feeding stations, with the exception of the bunch making the largest net profits, fair prices were paid and they brought no more than is being paid for well-finished steers on any of the Western markets.

"It is well also to look at the gross profits of \$29.36 to \$38.77. On the farm the figures for labor, pasture and feed could be cut in half, especially where not more than a carload is fed during the winter on any one farm, and it would be safe to say that the net profit for the farmer would, in every case, be very much nearer the gross profit than was the case in the experiments, not because he would be more economical but the items, labor and feed would cost him much less than they are figured at in the reports of the feeding experiments."

A Sample Steer.

The accompanying illustration is a snapshot of a representative sample 1720-lb fat steer in a carload of 20 head, averaging over 1500 lbs. each after more than 100-mile railway trip, sold recently at the Union Stock Yards, West Toronto Junction, for J. P. Beattie, their feeder, of Middlesex Co., Ontario, by Maybee and Wilson to the Harris Abattoir people at \$7.32½ per cwt. By frequenters of this growing cattle mart the bunch was reckoned the choicest that had made its appearance there this season. They were ripe and prime, and a credit to any fed lot.

Over-Fitting and Breeding.

Breeders who have had experience in fitting breeding stock year after year for the larger shows know how difficult it is to put the best bloom on the animals, and still not injure their breeding ability.

The very high feeding, often overfeeding, necessary to put on the extra finishing touches, is not usually, in the best interests of their procreative powers. Not so very long ago the writer visited a fine show herd, and the owner of that herd pointed out a very fine show cow saying, "I had to let her down in flesh, as in high fit she produced no calves."

On this question a writer in "The Farmer and Stock Breeder" throws out some valuable hints. He says that "probably few will be inclined to dispute the contention that very high feeding, being an entirely unnatural system, is prejudicial to the procreative instinct and that many herds, ably managed, have supplied examples of this. An un-

natural, obese condition tends also to produce patchy flesh, which, in the course of time, may become a defect unless the breeder is very careful with the system of management employed, and in the selection and mating of his stock. Then, again, we have the equally wide problem whether or not it is advisable to show young stock—whether, in fact, the advantages which are apparent are not outweighed by the damage which is done during the infantile period. It is probably correct to say that one-half of the young stock exhibited in high condition are spoiled in their youth. So keenly do some breeders feel upon the subject that they refuse to exhibit young stock, and discussions which have taken place from time to time clearly bring out the fact that breeders are more or less slaves to the system which has, in a financial sense, something to recommend it, but as a matter of policy it is questionable whether the game is worth the candle.

To some extent the evils have been mitigated by a more correct interpretation and delineation of high feeding as distinct from overfeeding. Of late years there has been less overfeeding seen in the showyard than was at one time common. The evil may have cured itself partly, but it is



Typical Steer.

One of a lot of twenty head, about the best sold on Toronto market this season. The lot brought \$7.32½ per cwt.

ments in the West, with all expenses, freight, interest, labor and feed of all kinds charged against the steers, showed a very nice profit besides the manure.

It must be noted that no value was placed on the manure. This would increase the net profit considerably. Good wages were charged against the cattle in every case, and the profits shown are surely encouraging. The steers were bought in at \$5.25, \$5.75, \$5.70 and \$5.70 per cwt., respectively, and all were sold at \$7.50 per cwt. The smallest spread in price was \$1.75 per cwt., two being \$1.80 and one \$2.25. The largest net gains were made in this latter case. Eastern feeders the past year were not privileged to enjoy so much spread in price.

The editor of our Western contemporary commenting on the results says:

"The results of the steer-feeding experiments, carried on at four of Alberta's demonstration farms, are arguments strongly in favor of finishing feeder steers. The net profit per steer, varying from \$4.50 to \$17.50, makes very satisfactory net returns when one considered that every item in the feeding experiment was billed against the steers in hard cash. Moreover, these steers were bought at considerable distances from the

very difficult to bring out young stock in the condition which is demanded nowadays, without either overstraining the constitution or ruining the feet and legs of horses, the even fleshing of cattle and the form of sheep. In the case of sheep the problem may be pushed on one side, because the production of fat lamb is so essentially a part of the breeder's policy that quick maturity and rapid feeding are considered essential. Cattle, however, are not all built for one purpose any more than sheep are. They have, however, a longer life, and the defects which mature in youth are liable to become perceptibly more visible as the years go on.

The long-wool type of sheep, which is not bred for early maturity, may suffer somewhat by the forcing system of feeding, and even in the hill breeds the system of quick maturity, which has been so largely recognized by the showyard is not entirely condoned by the sheep breeder, for the simple reason that quick turnover is not compatible with the conditions under which the great majority of these flocks are raised. There is a shrewd suspicion that high feeding and the attempt to introduce early maturity into flocks which are not suited for the purpose and into breeds which are not well adapted to it, has been an unalloyed blessing.

The beef type of cattle has, however, gradually gained by quick feeding in youth, and to the showing of young stock may be attributed, to a large extent, the inherited quality of rapid maturity, which is partly a breeder's and partly a feeder's triumph. Where the animal is brought to the block as early as possible, the showing of young stock is an advantage rather than a disadvantage, but where it interferes with the fruitfulness of the herd the breeder will realize that it is not a good system, which is productive of many barren heifers. Dairy cattle, on the other hand, are not shown with much condition, and so long as this excellent principle is maintained there can be no reasonable objection to the showing of calves and yearlings.

The exhibitor who finds most fault with the system is the horse breeder. Young colts and fillies are not naturally adapted to a system of forced raising. Breeders who show invariably have had experience in this respect, but for advertisement and sale it is necessary to show the young stock. The rapid ripening process is dangerous, and many a good foal showing great promise has been spoiled by too rapid ripening and feeding upon rations which were productive of fat rather than of bone and muscle. Concluding the article states:

"It is to be feared that beyond the moral force exerted by refusal to exhibit, there is no remedy, for the fittest animal will necessarily win in the public competition. At all events it is the judge's duty to examine and judge stock on the form presented to him, and not upon their promise of the future. So long as this is so the fitting of stock for the showyard will necessarily call for preparation to obtain immediate rather than future benefit, and those who are not willing to look to the future may find their policy costly. It is regrettable that so many promising animals disappear after an early experience of the showyard, and it is unfortunate that so many exhibits which stand well in early years should go far back when they come to maturity. But we must not blame early showing entirely for that, as each line of blood is endowed with its own peculiarities. It is within the experience of most breeders that the progeny of certain horses are known to do best in their youth, and to fall away as they mature; others, again, are only moderate as foals and colts, but steadily improve as the years roll on, while yet a third class are good all the way through. Too many defects must not be attributed to early showing, but that it does not tend to improve individuals most breeders will agree, unless the objects which the breeder has in view are those of rapid ripening and an early visit to the butcher."

All Hog Diseases Not Cholera.

A Minnesota veterinarian, discussing hog cholera, points out that all the ailments of the hog are not due to this dread disease, and that hogs suffer from other diseases, the symptoms of which should not be confused with those of cholera. He believes that ninety per cent. of the losses from disease among hogs are due to cholera but other diseases are often mistaken for it. This sometimes leads owners to blame serum because they have used it without benefit.

Garbage poisoning is one trouble sometimes mistaken for cholera. It results from feeding hotel and restaurant-table refuse containing large quantities of soap. The soap causes severe inflammation and it or other irritating substances produce symptoms much like those of cholera.

Worms cause troubles mistaken for cholera by multiplying in the lungs, causing irritation, stopping the air passages and giving rise to a cough and pneumonia. The animal becomes unthrifty and loses flesh, but does not die quickly or

show the other characteristic symptoms of true cholera.

Worms in the intestines cause diarrhea, dullness, and lack of thrift, but their presence can usually be detected in the droppings. Cholera is not present if the animal does not show the other symptoms, including fever, redness of the skin, and sudden death. When worms are present the appetite remains good. Loss of appetite is usually an early symptom of cholera.

Tuberculosis rarely runs a rapid course in hogs and should not be mistaken for cholera. It occurs most frequently among hogs fed on slaughter-house refuse, creamery, or other skim milk containing tubercle bacilli, or those following cattle.

If in doubt as to the presence of cholera have a competent veterinarian examine one or more of the dead hogs, but do not expect serum to protect against any of these other diseases. Hogs entirely immune to cholera may die from one of these other troubles.

Butchers' Cattle and Exporters.

There does not seem to be the great demand for heavy export cattle in comparison to that for extra choice butcher stock that there once was. Time was when the steer weighing over 1,400 pounds commanded considerable of a premium over the price offered for even the very best butcher stock, and feeders were straining every effort to produce heavy cattle.

The Old Country market was then the outlet for the cattle, and it demanded heavy stock. Baby beef was then almost unheard of. Times have changed. Rural population has stood still or dwindled, and urban centers have grown apace. Consequently the chief market is now the home market. The big steer has steadily lost ground, and the better types of lighter cattle finished at an earlier age have taken his place. Yearlings or two-year-olds properly finished are very good cutters and find very ready sale, butchers being anxious to get them, and the price paid for them is frequently in advance of that given for the heavy stock. Good heifers are looked upon with more favor than they once were. Not so very long ago steers met a readier sale at prices \$1.00 to \$1.25 per hundredweight higher than those paid for heifers, than the latter did at the smaller figures. Such is not the case to-day. A heifer, if she is good, is not penalized. On May the 26th a load of Angus yearling heifers, averaging 696 pounds each, topped the Chicago market, all kinds and classes included. These heifers were, however, well finished. It is said that a 700-pound yearling in prime flesh just suits the butcher catering to the high-class trade.

Market conditions are always interesting and generally perplexing. But the study of this branch of the producer's business is one which has been badly neglected by the producer himself. He grows, feeds and fattens the steers and heifers, and sells them as yearlings two, three or four-year-olds, whichever suits his pasture, feed and stabling best, very often without weighing carefully the comparative profits of selling at these different ages. For the man who grows his own stockers and feeders undoubtedly, under most conditions, greater profits are made from finishing the young animal, but where cattle are bought to feed such is not the case. It is a well-recognized fact that the heavy steer nearing maturity is the most profitable for the feeder to buy for finishing, as the spread in price

then works on a much greater weight than with the smaller animal. Suppose the buying-in price is 5 cents per pound and the selling price is 6.5 cents, the spread is 1.5 cents per pound. If the animal weighed 1,200 pounds when put in this spread would be \$18.00, whereas if he only weighed 600 pounds at the commencement of the feeding period, the spread would only amount to \$9.00. A difference of nine dollars on each feeder means considerable to the man who buys cattle to fatten. Again the heavy, older type of feeder usually fattens more easily than the younger, growing animal—a higher degree of finish is generally obtained in shorter time. These are points which favor the heavy steer for the man who makes a practice of buying cattle to feed. For the stock raiser who feeds his own cattle, the young animal is the more profitable if rightly handled. More economical gains are made with the very young animal, but the mistake of selling the cattle before they are thoroughly finished must be avoided. Young, small cattle poorly fitted are still slow sale, but these cattle ripe for the block are in demand. The heavy steer, while not enjoying such a price lead as he once did over that paid for lighter stock, will always sell well when in prime condition. Two things we learn from the market, 1st, the home market has grown to such an extent that the demand for choice butchers' cattle has overtaken that for heavy exporters, and, 2nd, no matter what class is finished, they should be made extra prime to command ready sale at the highest price.

With the price of pork as high as it is this season, one wonders just why so many young sucking or recently-weaned pigs are offered on the larger markets of the country. If there is any season when pork can be produced economically, it is during the summer months when the pigs can have the run of a paddock and be fed a large proportion of green feed, such as clover, alfalfa, etc. At the price of coarse grains this spring, it appears as though it would pay to keep and feed the young pigs, even though grain had to be bought to do it. Very often the youngsters are sold because the supply of grain in the bins has run low or too much has been sold off earlier in the year. We would think twice before we sold young pigs this spring.

THE FARM.

Get After the Weeds Early.

There is an old saying which everyone has heard, and which is true in a large measure as applied to most farm operations—"The early bird catches the worm." There are those who twist this old adage upside down, and to suit their purposes when they have arisen late in the morning, or are behind in doing some particular work, and make it read "The early worm gets caught." When the problem is weed destruction the farmer should be the early bird, and applying the second interpretation of the adage the weed should be the worm. In other words, make war on all weeds as early in the season as possible. From the very time that the little germ in the weed seed, stimulated by warmth and moisture, commences to draw upon the food material stored around it as a part of what we call the seed, until the plant emerges, grows, and ripens, its whole aim is reproduction of its kind by seeds, or root-stocks, or both. It waits for nothing, and always



In Pastures Green.

"Doddies" and their offspring on an Ontario farm.

makes the best of its opportunities. Under most circumstances the weed plant, or weed seed is in the land ready when the spring opens up, and always has the advantage of early seeding. Life is revived from the dormant winter state in many instances very early, and the weeds get a good start.

There are two kinds of weeds with which the tiller of the soil must deal—weeds of the field and weeds of the roadside and fence rows. If the land is badly infested a hoe crop, or a summer fallow, is generally advised for the former class, and how important it is to begin the cleaning operations early in the season. Where roots or corn are placed in a dirty field as much work as possible should have been done before planting or sowing, and then when the crop is small, and also while the weeds are young and tender the weeder harrow and cultivator can do a world of good and save a great amount of hand hoeing by killing the weeds before they have gained sufficient root-hold and strength to survive such treatment. Did you ever try to thin mangels or turnips after the weeds had gained a height of six inches or more, and the turnips had become spindly as a consequence? If so, you will realize the difference between getting after the weeds while they are small and allowing them to get such a start. The difference in time is not all. A cleaner job is almost invariably done while weeds are small. The larger plants are very often sufficiently advanced that the seed while still quite green has enough vitality to mature, and thus the land is reseeded. Yellow foxtail is a good example of a weed of this kind.

The summer fallow should be worked up as early as possible. There are many weeds which, if allowed to make a large growth before the plow is put on, like the foxtail in the hoed crop, mature when plowed down, and all the land is seeded for the following year.

It is a good plan where the summer fallow is very dirty to get it plowed early, and work it down to a fine dust mulch on top and keep it well cultivated once every week or so until sometime early in July, when buckwheat may be sown fairly thick or the land drilled up and sown to rape. These are good smothering crops and keep the weeds which have been weakened by early cultivation down well and smother them out in many cases completely. This system is to be recommended because it is a great saving of labor during the busy harvest season when, if the land is left bare there is some danger of cultivation being delayed, or neglected during the rush of work.

Roadside and fence-corner weeds present another problem. How can one hope to keep his farm clean with all kinds of noxious pests growing and seeding along its borders? Many seem to think that it is not their duty to cut weeds on the road adjacent to their farms. Whether they are paid in money for it or not is a municipal matter, but it surely is profitable from the viewpoint of clean farming, and no one should allow weeds to seed on the road in front of his place because of negligence on the part of the municipal authorities. Plan to cut these roadside weeds in good time before they mature any seed.

Undoubtedly the best way to clean weeds from fence-rows is to have less fences, but some are absolutely necessary where mixed farming is carried on, and to keep these bottoms free from noxious pests no better practice can be recommended than to each year take a good sharp scythe and cut everything growing thereon. Mow all the herbage and make cow hay of it, unless it is very weedy, in which case it might be advisable to burn it. We have seen dirty fence-rows cleaned up very well by this method, and it adds much to the appearance of the farm. Get after the weeds and keep at it. They are persistent; their fighters must also be persistent.

Experiments at the Rhode Island Experiment Station indicated that marked increases in the phosphorus percentage of turnips were caused by applications of acid phosphate to the soil.

THE DAIRY.

Fluctuations in Cow Testing.

Not a few dairymen who start in to test their cows become disheartened by an unsatisfactory test or two on the start. Finding some of their cows yielding milk with a small percentage of butter-fat, they lose interest and enthusiasm. It often happens that cows at this particular season, just after going out on grass, give milk much lower in butter-fat than the average of their year's production. Also there will be many fluctuations of individual cows from month to month, owing to a variety of causes that are difficult to trace. It is never wise to jump at conclusions. Just a leaf from our own recent experience. The official inspectors

for the Record of Performance are visiting our herd from month to month to supervise the record of a Shorthorn cow we have entered for that test, and we have availed ourselves of their services to test the grade cows as well. Of course we weigh the milk of all the cows. The first tests were made May 14th, and the second on May 31st. Some of the differences were striking. One cow, which tested 4.2% on the first occasion, dropped to 2.9%; another, from 3.7 to 3.0; another, from 4.3 to 3.7; others held their own, while one increased a tenth. The average decreased from 3.7 to 3.3%. In this case the cows were on grass at the time of both tests. The city-supply house which has been getting our milk, has previously made frequent bulk-lot tests, finding it to range from 3.8 to 4 per cent, and a shade higher. We may have one or two more grade Holsteins in the herd at present than formerly. But the main point is the fluctuation in test of the different cows. No doubt at the next test some of the three per cents will be up considerably. So it goes. We have no thought of discontinuing the testing because some of the cows showed a decrease. That would be sheer folly. If there are habitually low-testing cows in the herd we want to know it. It is to be feared that the main motive some dairymen have in testing is a desire to prove how good their cows are. How much more profitable to learn the truth! Often in this work the truth turns out to be much less distasteful than it seems on the start. Persevere.

HORTICULTURE.

Cultivation of Blackberries.

A fruit which is not appreciated as it might be is the blackberry, often called thimbleberry. An American bulletin on small fruit culture has this to say of this fruit:

The blackberry is undoubtedly the most profitable of the brambles. They are easily cared for, especially in localities where they do not require covering in the winter. The method of pruning the canes is like that of the black raspberry and since the plant produces suckers, the method of propagation is like that of the red raspberry and the suckers should be cut out the same as suggested with the red raspberry.

The requirements for a good location of a blackberry plantation are similar to those of the raspberry, except that more care must be taken not to select a place where the soil is too rich in nitrogen. The blackberry grows later in the fall than the raspberries and if grown on rich soil will not stop soon enough to thoroughly harden the canes for winter, and winter killing may result.

Although the blackberry is quite free from disease, the same spraying recommended for the raspberries will be found beneficial. Orange rust is frequently found in blackberry plantations. Plants affected should be cut out and burned as soon as found.

For the varieties that require covering during the winter the following method is best: Plow a furrow towards the plants in fall to keep them from being bent over too sharply. Then bend the canes over at right angles to the row and cover with two or three inches of soil. With a fork loosen the roots a little on the opposite side, to relieve the strain. In spring, as soon as the frost is out of the ground, the canes should be raised with a fork.

Stumbling on Cowper.

By Peter McArthur.

The May frost was a real disaster in this district, though it took us fully a month to find out about it. Yesterday an orchardist told me that it meant a difference of fully five hundred barrels of apples to him. He never had a better showing of blossoms, but most of them have dropped off. The Spies and Baldwins will yield about half a crop as they were later in coming into bloom, but the Russets and all the early varieties were completely killed. Even the notorious Ben Davises have been destroyed. An examination of our orchard shows that only a small percentage of the Baldwins and Spies have escaped, and the Spies are not going to do nearly so well as at first hoped. The late blossoms do not appear to have been fertilized, even though they have escaped the frost. I wonder if that was because the blossoms on all the trees around them had been killed. Everything seems to be against the orchard this year. Though we sprayed and put up a pretty fight against the usual, and some unusual, bugs, pests and blights, the frost put an end to everything. All of which puts me in the mood to quote Cowper's address to the rich and luxurious people for whom our choicest fruit is developed.

"Ye little know the cares,
The vigilance, the labor, and the skill,
That day and night are exercised, and hang
Upon the ticklish balance of suspense,
That ye may garnish your profuse regales.

Ten thousand dangers lie in wait to thwart
The process. Heat, and cold, and wind and steam,
Moisture, and drought, mice, worms and swarming flies,
Minute as dust, and numberless, oft work
Dire disappointment, that admits no cure,
And which no care can obviate. It were long,
Too long, to tell the expedients and the shifts
Which he that fights a season so severe
Devises while he guards his tender trust;
And oft at last in vain."

You will notice that although the poet's category of evils is fairly full, he evidently knew nothing of spores or microbes that are often more devastating than anything else.

As very few people read Cowper nowadays, I am going to tell how I happened to find that appropriate quotation. Last week we were hauling out manure to the corn ground and the young orchard, and while toiling at that arduous job it occurred to me that it was also somewhat prosaic. Burns and other Scotch poets have occasional references to "The midden," but I could remember nothing cheering. At last I remembered one word—"stercoraceous", and after a little reflection managed to locate it in Cowper's Task. At the noon hour I hunted it up.

"The stable yields a stercoraceous heap,
Impregnated with quick fermenting salts."

That certainly described in chosen words the pile at which we were working, and a little further on in the description I found this satisfying touch:

"A pestilent and most corrosive steam,
Like a gross fog Boeotian, rising fast."

From this it would appear that there is no kind of farm work to which the poets have not given their attention at some time.

Instead of putting down the volume after finding what I was looking for I kept on reading, and was not only delighted but amazed to find my own point of view expressed more beautifully than I could ever hope to express it. Because I found my own thoughts lifted above the work I was doing, I am going to quote a generous piece for the edification of others.

"With few associated, in remote
And silent woods I wander, far from those
My former partners in the peopled scene;
With few associates, not wishing more,
Here much I ruminate, as much I may,
With other views of men and manners now
Than once.

I see that all are wanderers, gone astray
Each in his own delusions; they are lost
In chase of fancied happiness, still woo'd
And never won. Dream after dream ensues;
And still they dream that they still succeed;
And still are disappointed. Rings the world
With the vain stir. I sum up half mankind,
And add two-thirds of the remaining half,
And find the total of their hopes and fears
Dreams, empty dreams. The million flit as gay
As if created only like the fly,
That spreads his motley wings in the eye of
noon,

To sport their season, and be seen no more.
The rest are sober dreamers, grave and wise,
And pregnant with discoveries new and rare.
Some write a narrative of wars, and feats.
Of heroes little known; and call the rant
A history; describe the man of whom
His own co-evals took but little note;
And paint his person, character and views,
As they had known him from his mother's womb.
They disentangle from the puzzled skein,
In which obscurity has wrapped them up,
The threads of politic and shrewd design,
That ran through all his purposes, and charge
His mind with meanings that he never had,
Or having, kept concealed. Some drill and bore
The solid earth, and from the strata there
Extract a register, by which we learn,
That He who made it and revealed its date
To Moses was mistaken in its age.
Some, more acute and more industrious still,
Contrive creation; travel nature up
To the sharp peak of her sublimest height,
And tell us whence the stars; why some are
fixed,
And planetary some; what gave them first
Rotation, from what fountain flowed their light.
Great contest follows, and much learned dust
Involves the combatants; each claiming truth,
And truth disclaiming both. And thus they
spend

The little wick of life's poor shallow lamp
In playing tricks with nature, giving laws

To distant worlds and trifling in their own.
 Is't not a pity now, that tickling rheums
 Should never tease the lungs and bear the sight
 Of oracles like these?—Great pity too,
 That, having wielded the elements, and built
 A thousand systems, each in his own way,
 They should go out in fume and be forgot?
 Defend me therefore, common sense, say I,
 From reveries so airy, from the toil
 Of dropping buckets into empty wells,
 And growing old in drawing nothing up!
 'T were well, says one sage, erudite, profound,
 Terribly arched and aquiline his nose,
 And overbuilt with most impending brows,
 'T were well could you permit the world to live
 As the world pleases: what's the world to you?"

Where could you get a better description of the activities of life as we see them to-day? And the last five lines seem as if they were written especially for Sir Jingo McBore to hurl them at me because of all I have had to say about the Bank Act and Big Business. As soon as time will permit I promise myself much pleasure in reading Cowper's poems again. It is quite clear to me that I missed a great deal when reading them as a boy.

Tent Caterpillars Destructive.

In this part of the country, and I have no doubt it is the same all over the province more or less, one notes with dismay the ravages of the tent caterpillar. Nearly every wild cherry, apple tree, etc., along the roadside has one, and often nearly a dozen webs of these caterpillars. By now, if the trees are small, all the leaves are eaten off them, and the worms are crawling over the ground, fences, and even around the farm buildings, in search of more food.

In this region (Oxford County) spraying the orchards is the rule rather than the exception, and surely when the farmer will take the precaution to ward off worms and insects in his orchard, he should be willing to go a step farther and take measures to destroy these destructive caterpillars. As this is a very serious pest, and one that does great damage in a very short time, it seems to me something should be done to control it.

The wild trees are of benefit chiefly because they furnish food for the birds, and for the fact, perhaps, that in the blossoming time they help to make the country attractive. This, however, the tent caterpillar completely spoils, both from a point of beauty and of usefulness, and leafless trees covered with crawling caterpillars are very objectionable. Why would it not be a good thing for every farmer to cut down every tree that harbors these caterpillars along his own fences, and burn them?

And another excellent breeding place for destructive insects and worms is the weeds along the fence rows, and the road front. If these were only cut down and burned also, surely the whole country would be very greatly benefited.

It would not mean very much extra work if one could only make the farmer think so.

If these things were done, and the grounds around farm buildings kept neat, and a few flowers, shrubs and vines planted, our province, already noted, would be one to feel even more proud of.

Oxford Co., Ont.

S. Z. P.

POULTRY.

Good Rations for the Poultry.

There are three classes of poultry with which every farmer is or should be concerned. These are growing stock (young chickens), fattening stock, and laying stock. Each of the three requires a different ration from that supplied the others, and yet there is considerable sameness in the rations recommended by our best authorities. The very fact that the rations are much alike in many particulars and still different, and the little differences are so very important in the feeding of these various classes, makes it necessary that the feeder exercise care, for it is apparent that very little change makes a great difference in results.

Rations to suit each of these classes are recommended by poultry experts in charge of this work in connection with a demonstration train now travelling in Ontario. Here is what they advise for growing chicks: buttermilk, chick feed, grit, hulled oats, wheat and alfalfa. It looks like a balanced ration, and if the chicks get enough of it they should gain well. It is a great mixture, and proves again that a variety in the diet is preferred. It is wonderful how buttermilk or sour milk has come to the front in poultry feeding during recent years. It is now recommended for birds of all ages, and forms a large portion of the drink, or liquid in preparing wet mashers on many poultry farms. Chick feed is valuable for the young birds, grit is needed by all classes, and hulled oats and

wheat are surely good feed. Alfalfa is a good green feed, and is high in protein content. Young clover or tender grass should be just as satisfactory during the season when it is plentiful.

As the young chickens grow the feed may be changed a little, and when fattening time comes they will be found to do very well on buttermilk, ground oats, ground buckwheat, low-grade flour and cornmeal. Mix all to the consistency of thick porridge, and feed in troughs. This is a good ration for crate fattening, a branch of the poultry business which has not been developed to the extent which the profits possible warrant. If you have any large cockerels this fall or during the late summer, try the crates and this ration.

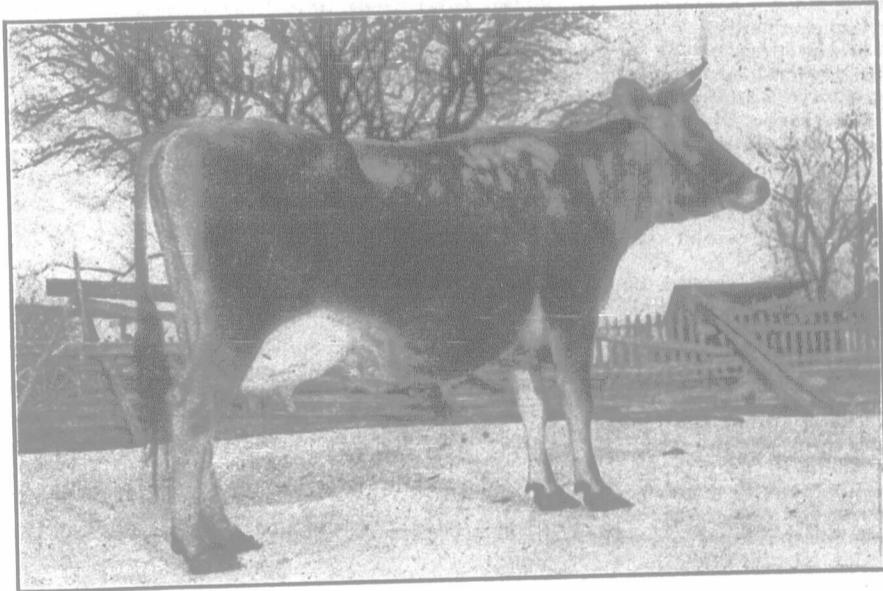
Then there is the laying stock. There is great room for improvement in this. With 365 working days for the hen every year and the average egg production hovering around 90 per hen there is a chance in a large percentage of the flocks for more systematic effort in breeding, feeding and weeding out old stock. Here is the ration: buttermilk, corn, rolled oats, grit, oyster shell, alfalfa and beef scrap. Get a laying strain of poultry, feed this feed, house the birds in the most sanitary house, and bring the production up to 150 or 200 eggs per hen per year.

Each of these three rations contains buttermilk and oats in some form. Those for laying hens and growing chicks each contain, besides these, grit and alfalfa. Oats are fed in three different forms, hulled, ground and rolled, the latter being fed from a hopper as a dry mash accessible at all times. These rations are all worthy of a trial, and, if interested in poultry, a little study given to them is time well spent.

Sour Milk for Chickens.

Almost every poultryman who has had experience in the raising of artificially-hatched chickens has more or less trouble with white diarrhoea. One of the main causes of death among chicks is this disease, says N. E. Chapman, a United States poultry specialist.

It is very prevalent, and investigations have shown conclusively that the original source is often from parent stock. Many chicks have the disease when hatched, and others contract it from them through feed and forage in infected litter or grounds. This transmission from chick to chicks is common during the first three or four days, and this is the period of great danger, especially among chicks of low vitality.



A Record Jersey.

This cow, owned by Jas. Bagg & Sons, Edgely, Ont., gave, in twelve months, 14,449 pounds of milk and 727.217 pounds butter-fat.

The symptoms are a whitish discharge from the vent, which results in "pasting up behind." The chicks become listless and sleepy, lose appetite, the feathers become ruffled, breathing labored, and they constantly peep or chirp. They may die suddenly or gradually waste away.

This disease is being most carefully investigated by the Agricultural Experiment Station at Storrs, Connecticut, and the third report of their investigations has been published. This report recommends the feeding of sour milk as the best thing to use for a preventive of this disease. It advocates feeding sour milk from the very first and keeping it before the chicks constantly. The acidity of the milk acts as a germicide. Moreover the milk is an animal product which chicks require in some form, and it is a great factor in the growth and vigor of the young flock. Of course the commercial chick feeds now so common are fed and pure water supplied, but in addition sour milk is kept before the chicks

constantly, the vessels being cleaned and refilled daily during the first few weeks.

Poultry raisers should feed sour skim milk constantly, at least after chicks are a few days old, as a preventive of this dread disease, and to stimulate their growth. It also increases egg production in the laying flock. Numerous experiments have demonstrated that skim milk and curds, or cottage cheese, are among the most stimulating feeds for poultry of all kinds, except very young chicks. Many claim that sweet milk is much safer until the chicks are at least a week or ten days old. There is a constant supply on nearly every farm, and it should be universally used for the farm flock.

FARM BULLETIN.

An Excellent Canadian Jersey Record.

Large and larger yields of milk and butter-fat are being brought to light by the officially supervised tests made in connection with the Canadian Record of Performance. A highly creditable one has been completed by a Jersey cow, Sunbeam of Edgely, 629, bred and owned by Jas. Bagg & Sons, Edgely, Ont. Commencing her test February 6th, 1912, at five years two hundred and ten days of age, this cow gave in twelve months 14,449.9 pounds of milk testing 5.03% of butter-fat, the total pounds of butter-fat being 727.217 equivalent to 850 pounds of butter, allowing for losses incidental to commercial butter-making practice. The minimum required of this cow to register in the Record of Performance would have been 8,500 pounds milk and 387 pounds fat, from which it will be seen that she had nearly six thousand pounds of milk to spare, while the fat requirement was considerably more than doubled. Her largest day's milk was 60.5 pounds. She was fed the same kind of feed as the other cows in the herd, and went to grass with them. She was milked three times a day for about three months. From her photograph she is not only a high producer, but also a cow of excellent type. She was sired by Brampton King Edward, and her dam was Daisy of Brampton.

Report of the Education Commission.

The report of the Royal Commission on Industrial Training and Technical Education, submitted to parliament at Ottawa last week, is a broad and carefully matured deliverance based upon nearly three years' inquiry in Canada, Great Britain, Europe and the United States. It affords an interpretation of modern needs and methods in education. The Commission of seven members under the chairmanship of Dr. Jas. W. Robertson with Thos. Bengough, of Toronto, as secretary, was constituted under direction of the former Minister of Labor, Hon. W. L. McKenzie King on July 6th, 1910, and began its labor in Halifax. The Commission proceeded with the concurrence of the several provinces of Canada, and everywhere met with the utmost cordiality and candor and a keen, awakening interest in the purposes and modes of education. One of the preliminary conclusions reached is that all children to the age of fourteen should receive the benefits of general, elementary education, which is taken to mean formal studies in reading, writing, drawing and arithmetic, together with experiences in work and play with others, making provision for:

- 1.—Training of the senses and muscles.
 - 2.—More and better drawing.
 - 3.—More physical culture.
 - 4.—Nature study and experimental science.
 - 5.—Pre-vocational work.
 - 6.—More and better singing.
 - 7.—Organized and supervised play and games.
- Having regard to the cost of the teaching of drawing, manual training, nature study, experimental science, and pre-vocational work, including domestic science in elementary schools, until teachers are available who have been taught them during their school days, and considering that such work had not been contemplated at

the time of confederation, the Commission suggests that a fund be created payable to the Provincial Government of not less than \$350,000 a year for ten years, divided according to population.

Expression is given to the common criticism that secondary education in Canada is too bookish; tends to give the youth a distaste for manual labor, and dulls any inclination toward skilled handiwork. The report expresses what journalists who followed the sessions of the Commission heard on all sides that this country is behind the times in the movements that make for industrial efficiency.

To aid in bringing about the needed reformation, the Commission recommends a Dominion development fund of \$3,000,000, to be provided annually for a period of ten years, and to be divided among the provinces on a basis of population. For carrying on this work seven distinct fields of effort are suggested by the Commission, as follows:—

1.—The service in each province of an adequate supply of persons, (teachers, instructors, demonstrators, executive officers) properly qualified to carry on industrial training and technical education.

2.—The establishment or extension and maintenance of classes, courses, schools or other institutions, or means for industrial training and technical education.

3.—The provision of suitable and adequate appliances, apparatus and equipment for teaching purposes, but not including school buildings, furniture or consumable supplies.

4.—The provision of scholarships to equalize opportunities to young people, and other workers to profit by classes, courses, schools or other institutions.

5.—The provision of experts with experience in industrial training and technical education, whose services or counsel would be available to provincial and local authorities.

6.—The service of central institutions when and where required to supplement the work carried on by the several provincial and local development authorities, either by providing and maintaining or by assisting in providing and maintaining each central institution.

7.—The promotion of scientific, industrial and housekeeping research and the diffusion of knowledge therefrom.

To carry on the work throughout the provinces and the Dominion as a whole, the commission believes that special machinery will have to be provided, and recommends six distinct organizations, comprising local urban industrial boards, local rural development boards, provincial development councils, provincial development commissions, a Dominion development conference, and a Dominion development commission.

The commission emphasizes the proposition of adopting a plan which will preserve provincial control, encourage local initiative and develop local responsibility. The importance of having the manufacturing and commercial interests of any locality ready and able to co-operate in carrying out the work emphasized.

Under the section devoted to secondary and higher education, among other conclusions expressed are these:—

1.—Secondary vocational education should be provided for those persons who follow manual-industry occupations, producing occupations such as agriculture, conserving occupations such as housekeeping and commercial and business occupations.

2.—Such persons should have opportunities for acquiring secondary education, which would be as fully advantageous to them in their vocations as the secondary education provides, as the general school system has been advantageous to those who enter into learned occupations, other professional occupations or the leisure class.

3.—Secondary education for those who have gone to work should be provided in day and evening classes in close co-relation with their occupations while they are still learners, also when they have become skilled workmen or journeymen, or have come to fill positions as foremen, superintendents or managers.

In the section relating to individual rights, needs and duties, there are some useful suggestions offered towards broadening and humanizing the training of factory workers, and others who operate machines. Special schools for fishermen are recommended.

A distinct feature of the report is the attention given to the problems of rural communities obviously important in view of the fact that while, during the past decade, the rural population increased only 664,878, the city and town population increased 1,258,645 in spite of all the attention paid to agriculture and the opening up new lands. Improvements in the rural schools are suggested, and permanency in case of the teachers. To get the teachers and courses faced aright is of prime importance in the elementary schools. Intermediate classes and schools are suggested, and intermediate rural and high schools are advised and outlined; resident or travelling instructors; field meetings;

enlisting the greater interest of rural teachers in agricultural and rural life; annual school gatherings and exhibitions; short courses; farm schools for foreigners; county agricultural and housekeeping schools; greater attention on the part of agricultural colleges to turning out trained instructors and experts, and the formation of local rural development boards.

The foregoing report, thus briefly outlined, is undoubtedly one of the most important ever laid before the Parliament of Canada, and the liberal realization of its purposes will prove of incalculable benefit to the nation. A request to the Chairman, Dr. Robertson, or the Minister of Labor, Hon. T. W. Crothers, will, no doubt, secure a copy, which every reader of "The Farmer's Advocate" should possess and study.

The Work of the Dust Mulch.

Every year is not as wet during the growing season as was 1912 in many districts in this country. Only a small portion of the moisture required by crops falls during their growing period, and it is necessary that some means of cultivation be adopted to conserve it together with that already in the soil. The dust mulch does the work. According to figures shown by the physical department of the farming special referred to in last week's issue, a clay-loam soil with no mulch loses by evaporation 21.310 inches of moisture in a season, while the same soil with an inch mulch loses only 11.180 inches—little over one-half as much, and with a two-inch mulch 8.562 inches are lost, and 7.852 inches is the figure representing the loss from a field on which a three-inch mulch is maintained. In sand similar results are shown, but the land being lighter and the particles not adhering together, and the land not holding so much water there is less evaporation in any case. With no mulch sand land showed an evaporation of 6.548 inches, a one-inch mulch 3.800 inches, with a two-inch mulch 2.996 inches, with a three-inch mulch 2.539 inches and with a four-inch mulch 2.785 inches. Just think what this means. Twenty-one inches over a surface 4 rods by 40 rods, or an acre, means 11,910 forty-gallon barrels of water. A one-inch mulch on this soil means that only 6,239 barrels would be lost for a saving of 5,671 forty-gallon barrels of water per acre. A two-inch mulch would allow only 4,821 barrels evaporation saving 1,418 barrels more for the use of the crop than a one-inch mulch. The difference between the effect of a two-inch and a three-inch mulch is not enough to make it necessary to go to the latter depth.

While sand does not lose so much water by evaporation the results show that just about one-half the amount is lost where a one-inch mulch is maintained as where no mulch is used. A mulch in sand should not exceed three inches as the figures show a greater loss at four inches than at three, and the differences between a one-inch and a three-inch are in each case less than one-half an inch, so that the one-inch mulch may be considered very effective in the case of sand as well as in clay-loam.

One can scarcely imagine a saving of 5,671 barrels, or 226,840 gallons of water on a single acre in a single year, and this all accomplished by cultivating a dust mulch, one inch deep over the surface, and if the mulch on the loam is extended to two inches then 7,089 barrels, or 283,560 gallons would be saved. Moisture is one of the limiting factors in all crop production, and these figures are worthy of deepest consideration. Corn fields, root fields, and summer fallows can

now be benefited greatly by frequent strokes of the cultivator and harrow.

The National Show Controversy.

The National Winter Live Stock Exhibition is still under discussion. Last week a delegation from the National Live Stock Record Board laid a plan for such a show before the Dominion Minister of Agriculture. The delegation asked that a Commission be appointed to interview the various agricultural associations in the different provinces, and also the provincial agricultural authorities to inquire into the practicability of the project. The point at which it would be held was not determined. Hon. Mr. Burrell expressed himself as in accord with the idea, and urged the necessity of obtaining the co-operation of all the different agricultural associations in the Dominion.

On June fifth another meeting was held by those endeavoring to launch what is termed the National Live Stock, Dairy, and Horticultural Exhibition in Toronto. This meeting agreed to hold their show about the middle of November this year, or the week of the 17th, but the exact date was left in the hands of the Executive Committee. The matter of electing permanent officials was left in the hands of a committee.

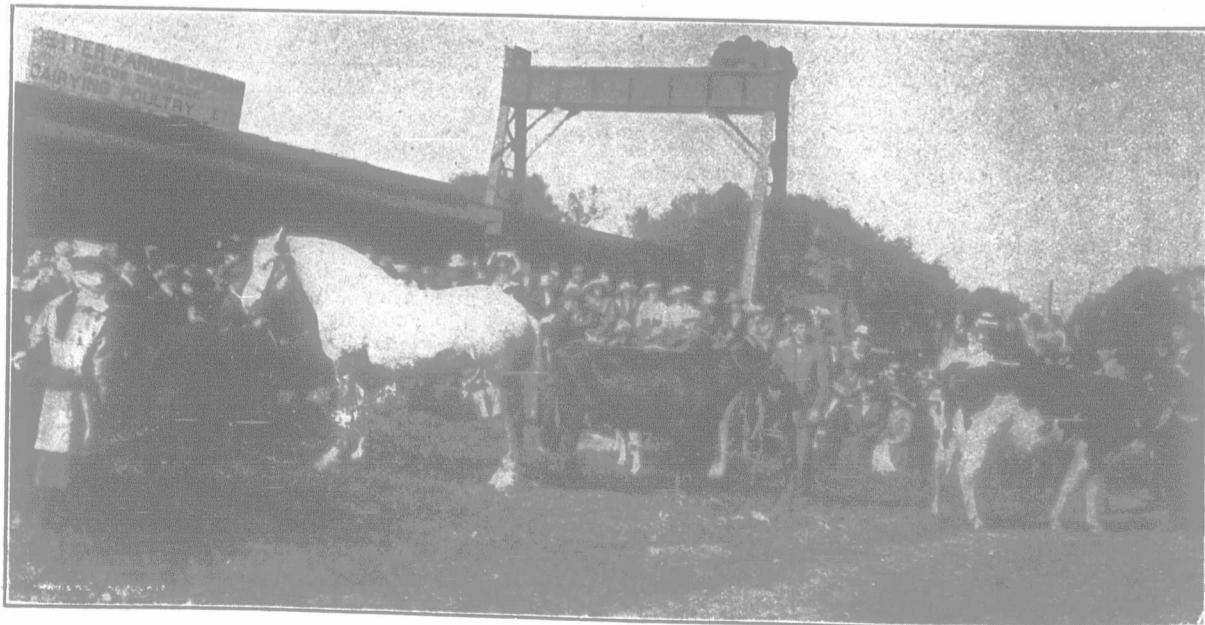
There was considerable dissatisfaction expressed by the breeders present as to the date, and the dairymen being against the November date are reported to have held a meeting subsequently and decided to hold a national dairy show in January next. The dairymen appointed a committee, who afterwards waited on Hon. Jas. Duff, Provincial Minister of Agriculture.

It looks as though the Toronto City Council's plans to start what they call a national show would never develop into anything more than a local affair, and with the live stock and dairy interests opposed to it and the horticultural men none too enthusiastic over it how can it ever hope to succeed?

The National Winter Show, if inaugurated, is not intended to interfere with any exhibitions already established. The officers of the fat stock show, held annually at Toronto Junction, believe that a new exhibition, even though it be started in Toronto, will cut no figure with their show, which this year will be held on December 6th and 8th, Saturday and Monday, set thus so as not to conflict with the Guelph winter fair. The premium list for this show will be about doubled this year.

Milk from Silage-Fed Cows Acceptable.

The Pacific Coast Condensed Milk Company, with condenseries in Oregon and Washington, has ceased its long fight against the silo, says a correspondent of Hoard's Dairyman. "About three-fourths of the milk produced in Washington county, the banner dairy county of this state, goes to this company's plants, and ever since their beginning here, eleven years ago, they have held that milk from silage-fed cows cannot be condensed. It is a source of great satisfaction to the dairymen to learn that the company has recently reversed its ruling, and it is now glad to receive all the silage-fed milk available."



Practical Agricultural Teaching.

Some of the stock carried by the Farming Special now travelling in Ontario. London school children and Normal students in the background.

Buying Eggs on a Loss-off Basis.

On Tuesday of last week, a meeting of the London Poultry Producers' Association was held, and the important business of agreeing to commence on June the ninth to buy eggs on a loss-off basis done. From that date on no bad eggs will be paid for. The meeting also passed a

resolution asking the Government to appoint capable inspectors to act as referees in any case of dispute arising. Gradually the bad eggs is being driven out of the market, and the sooner the better. When the dealer knows he is not paying for bad eggs he will be able to pay a higher price. The producer will get more money for his product, and will be encouraged to market his eggs in the

best possible condition. Buying on a loss-off basis means better eggs for the consumer and higher prices for the producer. Merchants handling eggs as "trade" and producers will require a little education in the handling of their eggs which should be gathered and marketed regularly, and often, and not allowed to remain around the store for weeks before being marketed.

Large Federal Appropriations for Agriculture

During the second session of the twelfth parliament of Canada, which was prorogued on Friday last, considerable legislation was disposed of which is of special interest to farmers. An important departure was made by the Hon. Minister of Agriculture in a new bill, the object of which is to provide money to the provinces for agricultural education. A number of amendments were made to already existing acts, aiming to increase their value, and there has been a very substantial increase in the appropriations for the different branches of the Department of Agriculture, which will enable them to extend their work.

THE AGRICULTURAL INSTRUCTIONS ACT.

The most important and far-reaching legislation introduced this session by the Minister of Agriculture is the Agricultural Instructions Act. From the Consolidated Revenue Fund \$10,000,000 is set apart to be expended during a period of ten years to forward agricultural education in the different provinces. This will be distributed on a population basis with slight modifications, which include \$20,000 a year to be divided between the veterinary colleges granting degrees up to the required standard and allotting \$20,000 to each province regardless of population. The object of this is to give some special consideration to the provinces where rural population predominates to a larger extent than in the provinces containing the large centres of population. The \$10,000,000 is to be spent during a period of ten years, and the provinces will share as follows :-

	1918	Yearly Increase	1917-23
Prince Edward Island	\$ 26,529.85	\$ 1,306	\$ 31,753.78
New Brunswick	44,509.93	4,902	64,117.87
Alberta	46,094.95	5,219	66,970.91
British Columbia	47,334.76	5,467	69,202.56
Manitoba	51,730.05	6,346	77,114.09
Nova Scotia	54,288.43	6,858	81,719.21
Saskatchewan	54,296.29	6,859	81,733.32
Quebec	159,482.40	27,896	271,068.22
Ontario	195,733.32	35,147	336,319.98

If in any year a province does not spend the full amount of its grant, this may be used at a later date; or a larger amount, or even the whole grant to any province, may be spent in one year if approved by the Governor-in-Council and the Lieutenant-Governor-in-Council of the province.

INCREASED COMPENSATION FOR HORSES SLAUGHTERED.

An amendment to the Animals Contagious Diseases Act provides for increased compensation to owners of horses slaughtered by officers of the Department under the Act. At present the maximum valuation for a grade horse is \$150, and compensation can only be paid up to two-thirds of the value, or \$100. Under the amendment the maximum valuation is raised to \$200, and compensation may be paid up to \$133.33. For pure-bred horses the value is raised from \$300 to \$500, so that compensation may be paid up to \$333.33. When introducing the amendment the Hon. Mr. Burrell explained that under the old standards injustices were often done to owners of horses. When the Act was put into force in 1904, the price of a horse was practically half what it is to-day. A farmer will often have to pay \$200 or more to replace a horse for which he was paid only \$100. During last year for glanders alone \$60,000 was paid out in compensation. The number of horses destroyed was 638, divided as follows :-

New Brunswick	10
Quebec	17
Ontario	7
Manitoba	24
Saskatchewan	428
Alberta	152
Total	638

Although the figures for Saskatchewan are still large, there has been a gratifying decrease over the previous year, when there were 722 destroyed in Saskatchewan out of a total of 853 for the whole of Canada. The Act empowers

the Governor-in-Council to deal with the matter of compensation, and as a few regulations have to be issued for the guidance of inspectors, it will probably be September before the new amendment takes effect.

IMPORTED FRUIT TO BE GRADED.

The Inspection and Sales Act has been amended to empower the Governor-in-Council to provide for grading and marking imported fruit. This is a matter which especially concerns fruit growers and consumers in Western Canada, although the regulations apply throughout the Dominion. The original Fruit Marks Act was intended to apply to the export trade only, but Parliament extended this to include domestic fruit for inspection, although no provision was made for marking and inspecting imported fruit. During the last few years large quantities of fruit have been coming into Canada, especially in the Prairie Provinces and British Columbia, which is not marked in accordance with the Dominion Act. Canadian fruit growers who have to comply with the Act feel that they are under unfair competition. As the Canadian law can not be made to apply to American packers, the amendment aims to have the Act applied to the importer of fruit instead of to the packer, and make him responsible for grading and marking the fruit.

INCREASED APPROPRIATIONS FOR THE WORK OF THE DEPARTMENT.

In most cases the estimates provide for liberal increases in the amount available to the different

TO ACQUIRE TERMINAL ELEVATORS.

The Government is preparing to meet the requests of the Western grain growers in acquiring terminal elevators. The item in estimates of the Trade and Commerce Department for an appropriation of \$4,700,000 for this purpose was adopted.

The Co-operative Credit Society Bill, introduced by Arthur Meighen, Portage la Prairie, Man., aims to facilitate the organization of co-operative societies among farmers which will be of assistance to them in securing credit as well as doing ordinary business. This bill was not put through this session owing to the pressure of other business, but it will likely be re-introduced and its supporters claim that it will be a valuable adjunct to the present banking system.

In the limited revision of the tariff which was made, the items of special interest to farmers are the placing of ditching machines on the free list, and the reduction of the duty on cement from 12½ to 10 cents per hundred. The duty on sugar was also reduced. The removal of the duty from dredging machines will be especially welcome to those farmers who have land to be tile-drained.

The bill providing for a system of parcels post in Canada was passed during the last days of the session. The appropriation of the Post Office Department includes \$150,000 for rural mail boxes, and extra expenditure in connection with rural mail service.

The bill providing for a money grant to the provinces for the construction of good roads was re-introduced, but amended by the Senate so that it was not acceptable to the Commons.

Parcels-Post Bill Passed.

The House of Commons and Senate at Ottawa have adopted the Parcels-Post Bill, introduced by Hon. L.P. Pelletier, Postmaster-General, to go into operation within a year. The weight limit is eleven pounds; combined length and circumference seventy-two inches; each province to be a zone, the three Maritime Provinces, however, being considered as one. In addition there will be a local zone irrespective of provincial boundaries, the centre being the point at which the parcel is posted, designed to protect local dealers against the big departmental stores.

branches of the Department of Agriculture, as the following summary will show :-

	Appropriation 1913-14	Increase over last year.
Experimental farms, including the maintenance of the older organized farms at Ottawa, which takes almost one-half of the amount	\$250,000	\$ 70,000
Experimental farms, toward establishment and maintenance of additional branch stations	350,000	150,000
Experimental farms (from Public Works Department), new buildings and improvements, tobacco-curing station, renewals, repairs, etc., in connection with existing buildings, fences, etc., and re-construction of the Indian Head buildings	150,000	65,000
Experimental farms, printing and distributing reports and bulletins	30,000	15,000
Exhibitions, for the support of large international exhibitions. This year's vote is largely for the international exhibition at Ghent, Belgium. A considerable sum will also be used for preliminary expenses in connection with the Panama exhibition of 1915	375,000	200,000
For renewing and improving Canadian exhibit at Imperial Institute, London, and assisting in its maintenance	8,000	None.
For the development of the dairy and fruit industries, and the improvement in the transportation, sale and trade in fruit and other agricultural products	205,000	65,000
To enforce the Seed Control Act, test seeds for farmers and seed merchants, to encourage the production and use of superior seeds, and to encourage the production of farm and garden crops	115,000	35,000
Toward the encouragement of the establishment of cold storage warehouses for the preservation and handling of perishable fruit products	200,000	None
For the development of the live-stock industry, including the purchase of improved sires for use by local agricultural organizations	200,000	98,000
Health of animals, including the administration of the Animal Contagious Diseases Act, and payment of compensation for animals slaughtered	450,000	100,000
For the administration and enforcement of the Meat and Canned Foods Act	200,000	25,000
To encourage the production and sale of Canadian tobacco	30,000	10,000
Publications Branch, including contribution toward maintenance and expenses of representative at International Institute of Agriculture, Rome. For experiments in cold storage for fruit	32,000	17,000
Grant for Dominion Exhibition	28,500	None
For the administration and enforcement of Destructive Insects and Pests Act	50,000	5,000
For the administration and enforcement of the Meat and Canned Foods Act	30,000	5,000
Dominion cattle quarantine building, repairs, renewals, etc.	60,000	
National biological laboratory, maintained at the Experimental Farm, Ottawa, for investigation work	25,000	None
For the administration and carrying out of the provisions of the Agricultural Act	25,000	New

The Horse Reigned at Galt.

There is one event which makes the town of Galt famous over the Dominion, and that is its annual summer horse show. The thirteenth of these great shows, and the greatest of them all in entries and attendance was held June 5th, 6th and 7th, in Dickson Park, so admirably situated for such an event. On the edge of the river, which is best described by its name "Grand", and at the foot of a steep slope dotted with trees is a level expanse where horses may be shown to the best advantage, and the natural conditions here are most favorable. Horsemen appreciate this, and even the equine beauties seem to be inspired to show the best that is in them when prancing over this select ground. Favored with the best of weather, although a little cool on the closing day, and honored by a visit from Sir John (Lt.-Governor of Ont.) and Lady Gibson and party, the show just closed eclipsed all former horse shows in Galt. Some of the old-time exhibitors were absent, viz., Hon. Adam Beck, Hon. Clifford Sifton, Crow & Murray, Geo. Pepper, and Aemikus Jarvis, but new ones came on strong and Miss Viau, of Montreal, Jones & Bates, Ottawa, Capt. Reason, London, and many others stepped in for the first time and carried off a large portion of the money and silver.

The agricultural and heavy-draft sections were filled largely from local districts, but a few were in from a distance. The class for agricultural two-year-olds had nine entries, Lady Orlo winning for F. J. Wilson, Riverbank; A. Atchison, Guelph, getting second on King, and J. McClure & Son, Brantford, getting third on Sandy; Queenie going fourth for Allan Fried, Roseville. It was a fair class. In the three-year-old class Queen Acre won for James Marshall, Ayr, with Queen second for August Becker, New Dundee, and Prince third for R. J. Carrick, Roseville, and Belt, owned by David H. Snyder, New Dundee, fourth.

The heavy-draft classes brought out a few good entries. The best filly or gelding three years old was found in Violet Matchless, a brown mare exhibited by John Brown, Galt. Baron, a big gelding showed by the Dominion Transportation Co., Toronto, went second, and Fred was third for Frank Adam, Roseville; Dora Duff going fourth for Mrs. A. A. Dryden, Galt.

In single dray horses H. Pelton, Embro, got first and second on a very big pair of geldings showing good quality; third and fourth going to P. McDonald, Rayside, on a span with a little less size, and possessing very fine quality. In pairs these horses were placed in the same order, the former two winning the \$200 cup and \$25. This is the second year in succession that this team has captured the silverware, so Mr. Pelton becomes the permanent owner of the handsome trophy.

Agricultural pairs were headed by Bell & Bess, a nice pair of mares owned by J. McClure, Brantford; Firstbrook Bros., of Toronto, getting second, and Chas. W. Moser, Berlin, third.

General-purpose horses made a very good showing. Maggie and Peach, exhibited by D. B. Wood, Hamilton, winning; Rose and Sparkle going second for Geo. R. Barrie, Galt, and Prince Ozegan and Princess Maud third for John T. Petch, Crosshill.

The best registered draft mare was found in Celtic Maid, owned by Lee Bros., Galt; Viola Matchless going second for Brown, and Dora Duff third for Mrs. Dryden; Lady Byron standing fourth for Allan Fried.

Harness horses were a great feature this year. Miss Viau and Bates & Jones putting up a great exhibition. Miss Viau won the class for single harness horses over 15.2 on Earl Grey, also getting fourth on I Wonder, and Byplane and Aeroplane getting second and third for Bates & Jones. No mention need be made of these horses, as they are all well known to those interested in harness horses. The class for single horses developed a little sensation when Eye Opener, Miss Viau's entry, was placed first over Sir Henry Pellatt's great actor Lord Kitchener, the driver of the latter refusing to take second place. There were those who would have reversed the decision, but Eye Opener showed at his best. Going Some was moved up to second for Bates & Jones, and Lochrya Princess got third for F. C. Grenside, Guelph.

In pairs 15.2 and over Sir Wilfred and Earl Grey, the \$20,000 wonders from Miss Viau's stable, won, with the very fine team Aeroplane and Byplane second. In pairs under 15.2 'I Wonder and Eye Opener won for Miss Viau.

Eye Opener won the \$50 silver cup for Miss Viau in the ladies' harness class, the same exhibitor getting second on I Wonder.

Going Some and So Am I won the tandem class for Bates & Jones; the same owners, Aeroplane and Byplane, getting second, and Miss Viau third.

Miss Viau, after a close contest, was adjusted best lady driver, Eye Opener being the horse.

Roadsters made their usual strong showing. W. J. Crossen, of Cobourg, winning the lion's share. His Median and Lady C. won the classes

for single horses, the latter taking the \$100 cup for the best road horse any height. He got 1st and 2nd on teams with Lady C. and Molly Chimes, and Median and Geo. H. Ketcham. Miss Wilks had the best pacer in Susie Oro, and and the best filly in Emma Todd.

Saddlers and hunters and jumpers were as usual one of the strongest features of all. Sunny Brook Farms, Eglinton; Ennisclair Farms, Oakville; H. R. Tudhope, Toronto; Capt. A. E. Reason, London, having out their good ones. The Corinthian class was won by The Viceroy from Cork, owned by Ennisclair Farms, and the high jump by Shot, from the same stables, going five feet ten inches.

Paddington, owned by Ennisclair Farms, was champion saddler, and also the best Canadian-bred mare or gelding of the exhibition.

Crowds were large on each of the three days, and the 5,000 people present on Saturday lingered until Shot had cleared the highest jump, and were then reluctant to leave king horse for another twelve-month. All pronounced the show the greatest success of its history.

Sale of Ayrshires.

The auction sale of Ayrshires at Terrace Bank Farm, Riverfield, Que., owned by J. D. Duncan, who owns and operates one of the largest milk and cream-delivery plants in the city of Montreal, on the 4th inst. drew a large crowd of local Ayrshire breeders. The stock was in the pink of condition, and had been nearly all imported from Scotland. Whenever an animal of Auchenbrain, Lessnessock, Netherhall, Barcheskie, or Ardyne was brought out the bidding was keen and the animal usually went at a good figure. The bidding was keenest on Ardyne Janet 7th, a beautiful three-year-old, bred by John McAllister, and sired by Not Likely of Hillhouse. It was evident from the start that Mr. McKell wanted this heifer, but he was hard pressed by some of Howick's noted breeders. There was keen bidding for some of the two-year-old heifers imported by Mr. Duncan last summer, and among them were some choice animals. The total of sale amounted to \$12,360. The fact of there being a few bull calves ranging from two days to two weeks old, which sold for low prices brought down the general average. The 64 head were sold by Andrew Philip, of Huntingdon, Que., in less than three hours. Mr. Philips has become noted among the stockmen as an auctioneer who can bring out the bids if they are to be had.

The following gives the names of animals sold for \$100, or over, also the purchaser and price:—Cows: Palmerston Hyacinth 2nd, R. R. Ness, Howick, Que., \$200. Chapmanton Soncie 2nd, Jas. T. Elder, Athelstan, Que., \$200. Chapmanton Wylie 5th, W. W. Begg, Moose Creek, Ont., \$430. Midkelton Fleckie, John McNeer, Strathroy, Ont., \$380. Craigley Pansy 2nd, P. D. McArthur, North Georgetown, Que., \$425. Hartburn May 5th, John Jackson, Malone, N.Y., \$195. Picken's Fancy, John Thompson, Howick, Que., \$495. Three-year-olds: Picken's Martha 2nd, John Humphries, Corbin, Que., \$100. Ardyne Janet 7th, Jas. McKell, Riverfield, Que., \$800. Broomberry Gav Lass, Jos. Hudson, Lvn, Ont., \$155. Kirkhouse Lily 5th, John Wilson, St. Chrysostome, Que., \$295. Southwick Meg 20th, Jos. Hudson, \$175. Chapelhill Bonnie 2nd, Walter Rodger, Ormstown, Que., \$160. Lochfergus Daisy 4th, J. R. Wilson, Lackolle, Que., \$200. Three Thorns Duchess 2nd, John Wilson, St. Chrysostome, Que., \$225. Three Thorns Soncie, Dr. John Watson, Howick, \$225. Shiel Hettie, R. R. Ness, \$200. Smyrton Gay Lass, Hector Gordon, Howick, Que., \$150. Lochfergus Eppie 2nd, Melvin Begg, Moose Creek, Ont., \$275. Southwick Miss Hover 5th, R. R. Ness, \$200. Burn Bogie, John Wilson, St. Chrysostome, Que., \$250. Castle Gower Fanny, McMillan & Leggat, Trout River, Que., \$175. Two-year-old heifers: Broomberry Snowy, John McIntosh, Aubrey, Que., \$145. Picken's Violet, Dr. John Watson, \$375. Picken's Bric-a-brac, J. B. Carr, Trout River, Que., \$200. Picken's Queen 3rd, Dr. John Watson, \$410. Southwick Sally 10th, Wm. Wylie, Howick, \$210. Boreland Victoria 3rd, McMillan & Leggat, \$225. Aitchison's Bank Hornie 11th, John Watson, \$100. Kirkhill Mary Weir, Wm. Wylie, \$220. Picken's Primrose 2nd, Dr. John Watson, \$180. Picken's Barcelona, Thos. Levers, Athelstan, Que., \$150. Picken's Pansy, John Wilson, \$180. Aitchison's Bank Importance 10th, John Wilson, \$130. Lady Molly Duncan, Wm. Wylie, \$125. Palmerston Hyacinth 3rd, Chas. Hyde, Huntingdon, \$132. Aitchison's Bank Scottish Queen, Dr. John Watson, \$120. Picken's Martha, McMillan & Leggat, \$172. Southwick Meg 23rd, P. D. McArthur, North Georgetown, Que., \$385. Picken's Pearl 2nd, J. P. Cavers, Ormstown, Que., \$250. Picken's Missie, D. A. Macfarlane, Kelso, Que., \$170. Picken's Preston, D. T. Ness, Howick, \$195. Yearling heifers: Picken's Soncie, Hector Gordon, \$157. Picken's Taylor 4th, Hector Gordon, \$200. Picken's Pearl 2nd,

J. P. Cavers, \$165. Picken's Queen 4th, Chas. Hyde, \$110. Picken's Teenie, McMillan & Leggat, \$127.50. Picken's Peach, McMillan & Leggat, \$297.50. Castle Carth Creavie Darling, McMillan & Leggat, \$125. Fleckie of Terrace Bank, Dr. Watson, \$110. Heifer Calves: Jean McKell, T. Goundry, Howick, \$122.50. Terrace Bank Meg, W. H. McNish, Lvn, Ont., \$102.50. Bulls: Lochfergus Young Marquis, three years old, W. L. Begg, \$200. Wylie of Terrace Bank, one year old, T. Stewart, Hemingford, Que., \$105.

SUMMARY.

7 cows brought.....	\$2,375	Average	\$340
15 3-year-olds brought	3,585	"	239
20 2-year-olds brought	4,075	"	204
8 yearling heifers brought	1,292	"	162
6 heifer calves brought	498	"	83
1 3-year-old bull brought.....	200		
1-year-old bull brought	105		
6 bull calves of 1913 brought	230	"	39

Graduates in Agriculture.

The following is a list of the students of the Ontario Agricultural College class of 1913 who have passed the examinations, and received the B.S.A. Degree. Where a subject appears in brackets the candidate will be required to write a supplemental examination on that subject before obtaining his Degree. R. S. Beckett, South Pelham, Ont.; A. G. Bland, Kelowna, B.C.; R. A. Boddy, Guelph, Ont.; G. G. Bramhill, Harriston, Ont.; R. W. Brown, Bismark, Ont.; R. H. Clemens, Galt, Ont.; H. Cooke, Johannesburg, South Africa; G. J. Culham, Toronto, Ont.; S. R. Curzon, Guelph, Ont.; E. Davies, Brantford, Ont.; W. Davison, Willow Point, B.C.; R. Diaz, Ferrol, Spain; G. C. Ellis, Florence, Ont.; R. H. Ferguson, Guelph, Ont.; J. B. Grange, Toronto, Ont.; P. S. D. Harding, Lacombe, Alta.; L. B. Henry, Winona, Ont.; L. J. Hextall, Calgary, Alta.; E. G. Hood (animal chemistry), Hagerman, Ont.; M. H. Howitt, Hamilton, Ont.; G. J. Jenkins, Todmorden, Ont.; S. C. Johnston, Islington, Ont.; H. L. Keegan, Monkstown, Dublin, Ireland; H. M. King, Hickson, Ont.; H. M. McElroy (bacteriology), Chesterville, Ont.; D. McKel, Des Moines, Ia, U.S.A.; F. C. Millen, Guelph, Ont.; C. S. Nicholson, Teviotdale, Ont.; H. C. Nixon, St. George, Ont.; J. W. Noble, Horning's Mills, Ont.; E. F. Palmer, Victoria, B.C.; H. E. Present, Guelph, Ont.; C. Rogers, Johannesburg, South Africa; H. S. Rylie, Oakville, Ont.; F. D. Shaver, Cainsville, Ont.; A. W. Sirett, Rosseau, Ont.; H. Stanforth, Gravelbrook, Manchester, England; J. L. Tennant, Falkland, Ont.; W. H. J. Tisdale, Paris, Ont.; C. A. Treceilus, Calgary, Alta.; C. A. Webster, Dundas, Ont.; G. Wilson, Oakville, Ont.

Meadows Backward.

Notwithstanding the extraordinary catches of clover and grass seed obtained in the wet summer of 1912, the unusually safe wintering of the same, and the exceptional spurt of early growth this spring, meadows in the fore part of June were anything but promising. Observations in Middlesex, Waterloo, and other counties representative of Western Ontario by members of the Farmer's Advocate staff, indicated that pastures were very poor for this season of year, and even new-seeded meadows by no means uniformly good. Cold weather during May, with several frosty nights, had given a check to growth, while, by all appearances, white grubs were injuring the roots of the grass in many old pastures. From Eastern Ontario, and the north shores of the St. Lawrence, in the Province of Quebec, the Trade Bulletin had received numerous complaints, one farmer who had recently driven through Glenarriv, stating that he had never seen the hay fields and meadows in a more backward condition at the season. Some farmers had stabled their cows and were feeding them with hay. Later advices were more hopeful, however, and with favorable weather there is still chance for a fair crop. Some new seedings are found to be excellent. Spring grain seems to be coming along healthily, although not far advanced for the time of the year.

British Trial of Milking Machines.

At the Council meeting of the Royal Agricultural Society of England, held on May 7th last, Ernest Mathews, Chairman of the Dairy Committee, announced the results of the trials of milking machines which were carried out by the Society at Grange Hill Farm, Bishop Auckland, Co. Durham, from April 22nd-25th, 1913. It was decided upon the report of the judges to award the first prize consisting of the Society's Gold Medal and £25 (\$121.67) for the "Omega" Milking Machine sent over from Flen, Sweden, and the second prize consisting of the Society's Silver Medal and £10 (\$48.67) to Messrs. Vaccar, Ltd., of Denman Street, London, S. E. A complete official report of the trials will be published, and the prize machines will be exhibited at the Society's annual show to be held at Bristol from July 1-5 next.

THE ROYAL BANK OF CANADA

Capital Authorized - \$ 25,000,000
Capital Paid Up - 11,560,000
Reserve Funds - 13,000,000
Total Assets - 180,000,000

HEAD OFFICE: MONTREAL

Branches throughout every Province of the Dominion of Canada.

Accounts of Farmers invited. Sale Notes collected.

Savings Department at all Branches

Markets.

Toronto.

REVIEW OF LAST WEEK'S MARKETS

At West Toronto, on Monday, June 9, receipts at the Union Stock-yards numbered 107 cars, comprising 2,226 cattle, 322 hogs, 418 sheep and lambs, 30 calves, and 6 horses. No business transacted. At the City yards there were 10 cars, comprising 177 cattle, 58 hogs, 114 sheep and lambs, and 71 calves. Trade at this market was quiet. Steers and heifers sold at \$6.25 to \$7.10; cows, \$4.25 to \$5.75; calves, \$7.50 to \$8.50 per cwt.; sheep, \$6 to \$6.50 per cwt.; lambs, \$6 to \$6.50 each. Hogs were quoted at \$9.85 fed and watered, and \$9.50 f. o. b. cars.

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

	City.	Union.	Total.
Cars	16	352	368
Cattle	189	4,973	5,162
Hogs	125	7,036	7,161
Sheep	378	1,407	1,785
Calves	180	951	1,131
Horses	—	76	76

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

	City.	Union.	Total.
Cars	208	256	462
Cattle	2,384	3,304	5,688
Hogs	4,639	5,350	9,989
Sheep	1,110	345	1,455
Calves	1,173	121	1,294
Horses	29	53	82

The combined receipts of live stock at the two markets for the past week show a decrease of 94 cars, 526 cattle, 2,828 hogs, 163 calves, and 6 horses; but an increase of 330 sheep and lambs, compared with the corresponding week of 1912.

Receipts of live stock were moderately large, but not equal to those of the same week for last year. The quality of cattle was good, and a few loads of extra choice were on sale. The prices paid were about on a par with those reported in our last market letter. One or two loads sold at a little more money, but the quality of the cattle made up for the larger price paid, so that, all things considered, values of cattle were not any higher than in our last market report.

Exporters.—Lunness & Halligan bought four carloads of export steers, 1,250 to 1,350 lbs. each, at \$7 to \$7.40, but only one load at the latter price, and the quality of this load was such as to easily account for the extra price paid. These four loads were the pick of the market.

Butchers.—Choice steers of export

weights and quality sold to the local abattoirs and wholesale butchers, at \$6.9 to \$7.25, and in one instance \$7.35 was paid by the Montreal Abattoirs Company for a very choice load of steers; good to choice butchers' steers and heifers, sold at \$6.60 to \$6.85; medium, \$6.15 to \$6.60; common, \$5.75 to \$6; choice cows, \$5.75 to \$6.25, and in a few instances \$6.50 was paid for extra quality cows; good cows, \$5.25 to \$5.65; medium cows, \$4.75 to \$5.00; common cows, \$4 to \$4.50; choice bulls, \$5.75 to \$6.25, and in a few instances \$6.40 and \$6.50 was paid for extra quality bulls; medium bulls, \$5.25 to \$5.50; common bulls sold at \$4.50 to \$5.

Stockers and Feeders.—Feeders, 800 to 850 lbs., were selling at \$6 to \$6.25 and \$6.35; stockers, 600 to 700 lbs., at \$5 to \$5.75; light Eastern stockers, 500 to 650 lbs. each, and of inferior quality, sold at \$4.60 to \$5.10.

Milkers and Springers.—Receipts of milkers and springers for the past week were moderate, for which there was a good demand. Prices ranged from \$45 to \$85 each, the bulk of the cows selling at \$50 to \$65 each.

Veal Calves.—Receipts of veal calves were not equal to the demand, and prices were firm all week. Choice calves sold at \$8.50 to \$9 per cwt.; good at \$7.50 to \$8.40; common calves at \$6 to \$6.50, and inferior at \$5 to \$5.50.

Sheep and Lambs.—Receipts were not large enough for the demand, and prices were firm all week. Ewes, light, \$6 to \$7 per cwt.; heavy ewes and rams, \$4.50 to \$5.75; yearling lambs sold at \$7 to \$8 per cwt.; spring lambs sold at \$5 to \$8.50 and \$9 each, and one extra choice lamb sold at \$10.

Hogs.—The hog market was the highest of the year thus far, selects, fed and watered, selling at \$10 to \$10.10, and \$9.70 to \$9.75 to drovers, for hogs f. o. b. cars at country points, and \$10.80 to \$10.85 was paid for hogs weighed off cars.

Horses.—Trade at the Union Horse Exchange was very quiet for the past week, and not as good as it should be at this season of the year. Not only at the Union Exchange, but all the other sale stables report a slow trade. The supply of horses was fairly large. Few were sold to go outside the city, it being almost entirely local demand. Prices held about steady, as follows: Drafters, \$175 to \$250; general-purpose horses, \$150 to \$225; express horses, \$160 to \$225; drivers, \$100 to \$150; serviceably sound, \$45 to \$90 each.

BREADSTUFFS.

Wheat.—Ontario, No. 2 red, white or mixed, 96c. to 97c., outside; inferior grades, down to 70c.; Manitoba, No. 1 northern, \$1.01½; No. 2 northern, 99c.; No. 3 northern, 96½c., track, lake ports. Rye—No. 2, 60c. to 62c., outside. Barley—For malting, 50c. to 53c.; for feed, 43c. to 48c., outside. Corn—No. 3 yellow, 59c. to 59½c.; Midland, 63½c., track, low, 59c. to 59½c.; Toronto. Peas—No. 2, 95c. to \$1, outside. Buckwheat—No. 2, 49c. to 50c., outside. Flour—Ninety-per-cent. Ontario winter-wheat flour, \$3.90 to \$3.95, sea-board. Manitoba flour—Prices at Toronto are: First patents, \$5.30; second patents, \$4.80; in cotton, 10c. more; strong bakers', \$4.60, in jute.

HAY AND MILLFEED.

Hay.—Baled, car lots, track, Toronto, No. 1, \$12 to \$12.50 per ton; No. 2, \$10 to \$11 per ton. Bran.—Manitoba, \$17 per ton; shorts, \$19; Ontario bran, \$17, in bags; shorts, \$19, car lots, track, Toronto.

COUNTRY PRODUCE.

Butter.—Market easier on account of larger supplies. Creamery pound rolls, 28c. to 29c.; creamery solids, 27c. to 28c.; separator dairy, 25c. to 26c.; store lots, 22c. to 23c.

Eggs.—Market steady, at 21c. to 22c., in case lots.

Cheese.—New, twins, 14c.; large, 13c.; old, twins, 15c.; large, 14c.

Honey.—Extracted, 13c.; combs, \$2.75 to \$3 per dozen.

Potatoes.—Market firmer, at 70c. to \$7.5c. per bag for car lots of Ontarios, and 80c. to \$1 per bag for New Brunswick Delawares, track, Toronto.

Poultry.—Receipts light, but quite equal to the demand. Turkeys, dressed, 20c.

to 22c.; hens, dressed, 16c. to 18c.; a spring chickens, dressed, 40c. to 45c. per lb.; spring chickens, alive, 30c. to 35c. per lb.

Beans.—Car lots, track, Toronto, hand-picked, \$2 to \$2.25 per bushel, and primes at \$1.75 to \$1.90.

HIDES AND SKINS.

No. 1 inspected steers and cows, 13c.; No. 2 inspected steers and cows, 12c.; No. 3 inspected steers, cows and bulls, 11c.; city hides, flat 12½c.; country hides, cured, 12½c.; country hides, green, 11½c.; calf skins, per lb., 16c.; deacons, each, \$1.10 to \$1.25; lamb skins and pelts, 15c. to 25c. each; sheep skins, \$1.50 to \$1.75 each; horse hair, 37c. per lb.; horse hides, No. 1, \$3.50; tallow, No. 1, per lb., 5½c. to 6½c.

WOOL.

Unwashed, coarse, per lb., 14c.; washed, coarse, 24c.; unwashed, fine, 15c.; washed, fine, 26c.

FRUITS AND VEGETABLES.

The apple market is over for the present; onions, \$2.75 to \$3 per sack of 112 lbs.; beets, 35c. to 40c. per bag; carrots, 40c. per bag; parsnips, per bag, 50c.; asparagus, 50c. per dozen bunches; American strawberries, 32-quart cases, sold at 14c. to 16c. per quart; new potatoes, "American," sold at \$7 per barrel.

Montreal.

Live Stock.—There was a moderately active demand for cattle in the local market last week, and trade was of fair volume. Offerings were large, and the price tended downwards. Finest sold at 7c. to 7½c. per lb., fine bringing 6½c. and good 6½c. to 6½c. Medium cattle ranged from 5½c. up to 6½c., and common sold as low as 3½c. per lb. Small meats continue in good demand. Sheep were rather lower, and sales took place at 6c. per lb. Choice spring lambs were scarce, and ordinary stock sold at \$5 to \$7 each. Calves were in good demand, and sales of common stock took place at \$2 to \$4 each, and of better quality at \$5 to \$8 each. Select lots of hogs brought 10½c. to 10½c., weighed off cars.

Horses.—Heavy-draft, 1,500 to 1,700 lbs., \$300 to \$350; light-draft, 1,400 to 1,500 lbs., \$225 to \$300; light horses, 1,000 to 1,100 lbs., \$125 to \$200; broken-down, old animals, \$75 to \$125, and choicest saddle and carriage animals, \$350 to \$500 each.

Poultry.—Turkeys, 23c. to 24c. per lb.; geese and fowl, 15c. to 17c.; ducks, 20c. to 22c., and chickens, 18c. to 19c.

Dressed Hogs.—Abattoir-dressed, fresh-killed hogs, 14½c. to 14½c. per lb.

Potatoes.—Prices advancing weekly owing to scarcity. Green Mountains were selling here, on track, in carloads, at 75c. to 80c. per 90 lbs., while Quebec potatoes were selling at 60c. to 70c. Sales were taking place in a smaller way at an advance of 25c. to 35c. upon these figures.

Syrup and Honey.—Fair demand for maple syrup, at 85c. to 90c. per tin, and at 7c. to 8c. per lb. in wood. Maple sugar still 11c. to 12c. per lb. Honey, dull and steady, white-clover comb being 16c. to 17c. per lb., and extracted 11½c. to 12c.; dark comb, 14c. to 15½c., and strained, 8c. to 9c.

Eggs.—Quality of the stock arriving not quite so good, although better than usual at this time of year, owing to the cool season. Select eggs, 25c. a dozen in a jobbing way, and straight receipts, 21c. to 23c., according to quantity.

Butter.—There was practically no change in the market for butter last week, although sales took place in the Eastern Townships at slightly lower prices than the week before. Finest creamery was

still quoted here at 26½c. to 26½c., in a wholesale way, and fine stock might be had at about ½c. below these prices. Dairy butter was unchanged, at 22c. to 23. Monday's prices registered a decline of a cent in creamery.

Cheese.—Market has shown a slightly lower tendency, and Western white was quoted at 12½c. to 12½c., colored being about ½c. less. Eastern cheese about ½c. under the figures quoted for Western. Monday's quotations fractionally lower.

Grain.—No. 2 Canadian Western oats, 41c. to 41½c., ex store; No. 1 extra feed, 41c.; No. 1 feed, 40c. to 40½c., while No. 3 Canadian Western were 39½c., and sample oats, 38½c. to 39½c. Ontario malting barley, 61c. to 63c., ex store. Manitoba No. 3 barley, 56½c., while No. 4 was 55½c., and feed, 50c. per bushel. No. 3 yellow corn, 66½c., ex store.

Flour.—\$5.40 per barrel for Manitoba first patents, in bags; \$4.90 for seconds, and \$4.70 for strong bakers. Ontario winter-wheat flour, \$5.25 for patents, and \$4.75 to \$4.85 for straight rollers.

Millfeed.—A decline of \$1 to \$2 a ton in mouille. Bran steady, at \$17 a ton, in bags, and shorts \$19, while middlings were \$22. Mouille was quoted at \$30 to \$32 per ton for pure, and \$26 to \$28 for mixed.

Hay.—Easy, at \$12 to \$13 per ton for No. 1 baled hay, car lots, track; \$11 to \$12 for No. 2 extra; \$9 to \$10 for No. 2 ordinary, and \$8 to \$9 for ordinary.

Hides.—Prices were higher on lamb skins. Beef hides, 11½c., 12½c. and 13½c. per lb. for Nos. 3, 2 and 1 hides, respectively. Calf skins were 17c. and 19c. per lb., respectively, for Nos. 2 and 1. Lamb skins were 17c. and 19c. each, and sheep skins were \$1.15 each, horse hides being \$1.75 and \$2.50 each. Tallow sold at 1½c. to 8c. per lb. for rough, and 6c. to 6½c. for rendered.

Buffalo.

Cattle.—Prime steers, \$3.25 to \$3.40; shipping, \$3 to \$3.15; butchers', \$7 to \$7.25; cows, \$3.75 to \$7; bulls, \$5.75 to \$7.50; heifers, \$6.50 to \$7.85; stock heifers, \$5.50 to \$6.35; stockers and feeders, \$6 to \$7.75; fresh cows and springers, \$35 to \$35.

Veals.—\$6 to \$11.25.

Hogs.—Heavy, mixed, and Yorkers, \$9.05 to \$9.10; roughs, \$7.85 to \$8; stags, \$6.50 to \$7.25; dairies, \$8.85 to \$9.10; pigs, \$9 to \$9.10.

Sheep and Lambs.—Lambs, \$4.50 to \$7.25; yearlings, \$6 to \$6.50; wethers, \$5.75 to \$6; ewes, \$3 to \$5.25; sheep, mixed, \$5.40 to \$5.60.

Cheese Market.

Stirling, Ont., 12 1-16c. to 12½c.; Kingston, Ont., 11½c.; Brockville, Ont., 11½c.; Kemptville, Ont., 11½c.; Napawa, Ont., 11 13-16c.; Picton, Ont., 11½c.; Iroquois, Ont., 11½c.; Cornwall, Ont., 11½c. to 11 11-16c.; London, Ont., no sales, bidding from 11½c. to 11½c.; St. Hyacinthe, Que., 11 5-16c.; butter, 24½c.; Cowansville, Que., butter, 25½c. to 25½c.; Belleville, Ont., 11 11-16c.; Watertown, N. Y., 13½c.

Chicago

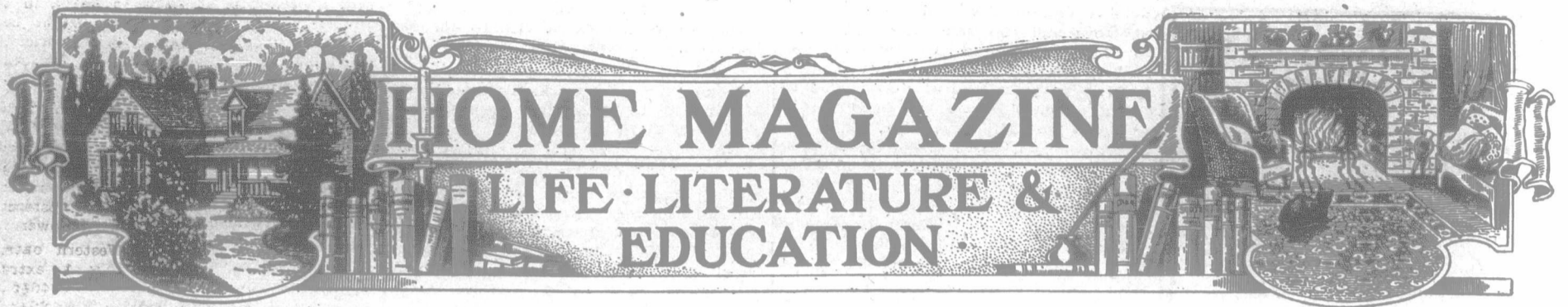
Cattle.—Beeves, \$7.20 to \$8.90; Texas steers, \$6.70 to \$7.75; stockers and feeders, \$6 to \$8.05; cows and heifers, \$8.65 to \$8; calves, \$8 to \$11.

Hogs.—Light, \$8.40 to \$8.70; mixed, \$8.35 to \$8.70; heavy, \$8.10 to \$8.65; rough, \$8.10 to \$8.30; pigs, \$6.65 to \$8.30.

Sheep and Lambs.—Sheep, native, \$4.90 to \$5.85; yearlings, \$5.50 to \$6.50; lambs, native, \$5.50 to \$7.40; spring lambs, \$5.25 to \$8.25.

British Cattle Market.

John Rogers & Co. report 15c. to 15½c. per pound for Irish steers.



Letters from Abroad.

ON MEDITERRANEAN SHORES.

XII.

Rome, May 5, 1913.

My dear Jean.—There is a moving-picture show running in Rome now which is creating quite a sensation. It is called "Quo Vadis," and the scenes are taken from the book of that name, by Sienkiewicz, which you have probably read. The show is advertised all over the city by flaming posters, depicting bloody scenes in the Coliseum, and Rome all ablaze. Everyone said we should go, because it was such a fine lesson in history, and gave one such a vivid impression of life in Rome during the time of Nero.

So we went.

It was more than interesting; it was positively thrilling. We saw the bloated, cruel, half-mad Nero in his Golden House, playing upon his lyre, and surrounded by his sycophantic courtiers. There was a grand banquet scene, ending in a wild bacchanalian orgy in which the Roman blue-bloods got so drunk they fell off their chairs, and were piled three deep on the mosaic floor. Then, suddenly, the scene shifted and we were out in the moonlight hurrying along the Appian Way with a silent group of shrouded figures. We stole into the subterranean passages of the Catacombs, and by the light of flickering tapers, saw Saint Peter talking to his followers. Then we were back in Nero's palace, and saw him plotting the destruction of Rome by fire. The conflagration of the city was a perfectly marvellous representation of fire and panic: people rushing madly through the narrow, crooked streets; buildings blazing and falling; thick clouds of smoke through which dim forms could be seen groping their way; terrified animals dashing pell-mell through the crowd, and a perfectly hair-raising scene showing the interior of a lion's den in the Coliseum, with the terrified brutes pacing up and down in the red glare of the burning city.

Then came an afternoon of sports at the Coliseum—chariot races, gladiatorial combats, and finally the terrible scene where the Christians are thrown out to the hungry lions. The Coliseum was pictured with Nero in the royal box, the vestal virgins in the one directly opposite, and an excited audience of eighty thousand spectators ranged tier above tier around the arena. The pagan soldiers entered the underground cells of the Christians. There was weeping, and entreaty, and protestation, and tragic partings and farewells, and then, at the point of the sword, they were driven out into the arena like cattle to be butchered. They were huddled together in one sad group awaiting their doom. A trap-door opened in the ground, and after a moment of awful suspense, out leaped a gigantic lion, then another and another, until fifteen lean, famished brutes, were pacing the ground and sniffing the air. They sighted the Christians at the far end of the arena,

and bolted towards them. There was a blood-curdling picture of the terrified Christians just before the lions pounced upon them, and another picture of Nero and his Court laughing merrily at the gay sight; and there was a ghastly scene showing the lions finishing their repast, the ground strewn with hair and clothes, and other unpalatable things. Two lions had a fearful fight over a savory morsel, and made the sand fly to such an extent that I could feel the gooseflesh rising all over me. Harmony got so excited she grabbed my arm in sheer terror, and Miss Morris held her breath so long she nearly strangled. I wish one of those savage lions could have made a meal of Nero, and eaten him slowly. What brutish people those early Romans were! Death was nothing to them, but they loved the process of killing, and never seemed to really enjoy life unless blood was flowing.

When we came out of the hall after our two-hours' residence in ancient Rome, we were so red-eyed and dazed, that before we could get adjusted to the complexities of the street-life of modern Rome we were nearly run over by a trolley-car. Harmony was so upset, and cross, and excited, that I thought I would have to change her name, but she cooled down after a cup of hot tea at the English Tea-rooms.

To tell the truth, Jean, I have had such an overdose of ancient Rome and its bloody history that, as an antidote, I have gone to the other extreme, and have been studying modern Rome as revealed in the Montessori schools, which are the very latest cry in education for children. You have probably read articles about Dr. Montessori and her schools in the American magazines. Prominent educators from all over the world are coming here to investigate her method. This year she has had her first class of instruction for teachers. There were ninety pupils, mostly all English or American. I have met a number of them, and must say that I never encountered such enthusiasm in my life.

Dr. Marie Montessori is a very brilliant Italian woman, who has been nurse, doctor, scientist, and philosopher, and, after years of practical experience, has evolved a new system of education for children which is quite opposed to all previous systems. If universally adopted, it would revolutionize educational methods, and put the kindergarten—according to Froebel—out of business.

In the Montessori schools the child is told no lies; fairy tales and foolish little stories and games are tabooed entirely. There is no class-work; each child works independently, and has personal supervision.

It sounds paradoxical to say that the children do just as they please, and that the class is quiet and orderly—but it is really true. Can you imagine a class of twenty children, varying in age from three to six, each one doing something different, and each one happily absorbed in his or her own work? Little tots of three or four do the most remarkable things, and they are never taught nor persuaded. When they do a thing, it is because they are interested and want to do it. The teacher observes and guides, but never drives. Quite a contrast to the spare-the-rod-and-spoil-the-child theory of past days, isn't it? When I saw kidlets of three sitting on the floor working out sums in arithmetic with blocks and transferring the results to slates, and apparently enjoying it, my mind harked back to those dreary hours long ago when I tried to learn by rote that awful bugbear of childhood's happy hours—the multiplication table. I really am not quite sure of it yet, but I try to keep the fact a dead secret, especially

from some friends of mine who are lightning calculators, and can do sums in their heads. After seeing the Montessori pupils, I felt quite convinced that my mathematical deficiency was due to faulty early training. It is a great relief to me to think that someone else is to blame.

The last Montessori class I attended was in a convent. The Sister in charge was robed in white, and had a beautiful face, like the picture of Saint Cecilia. She brought the class to order by writing upon the blackboard the one word, "Silenzio." (Silence.)

Every child was immediately as still as a mouse. It seems surprising to think such young children could read the written word, but if you could see their hand-writing you would wonder no longer. No babyish pot-hooks or chicken-scratches—but beautifully-rounded writing any grown-up might be proud of. And they never learn to write; they acquire all the necessary hand-movements by preliminary drawing exercises, so that when they are ready to write, they do it quite naturally.

I was awfully glad to think the class was started with an exercise in silence, for the Italians can make more unnecessary noise than any people on earth. Screaming seems to be their soft stop. Perhaps a generation or so of Montessori-educated children will soften the strident voices of the street and make a promenade less ear-splitting. I wish the trolley cars, and automobiles, and church-bells of Rome could have lessons in silence.

But I must tell you about Harmony's sad experience while out shopping. She has been feeling rather cheery lately about her progress in phrase-book Italian, and has worn at times a superior air quite irritating to the rest of us; but yesterday she came in looking very crestfallen. She had gone out to buy some condensed milk, but came home with a box of matches. She did not want to go as far as the English grocer's, so went into a little Italian place nearby and asked the clerk in her best Italian for a can of condensed milk. Her language was probably too classical, for the man looked as blank as a wall. She tried him in French and German with the same success. Finally she took a pencil from her bag and drew a picture of a cow, whereupon the man's face cleared at once. He rushed to the back of the shop and came back carrying a can of corned beef, which he planted on the counter with an air of triumph.

"No, no!" she said. He was immediately plunged into the blackest depths of despair, but suddenly brightened, and disappeared from view under the counter, emerging almost immediately with a can of ox-tail soup.

"No, no!" she said again, pointing sternly to the milking department of the cow, and drawing a pail underneath it. "Ah, si, si," he exclaimed, nodding his head affirmatively, and disappearing again.

Before you could say Jack Robinson he was back again dangling before her a shining tin pail. "No, no!" cried Harmony for the third time. Then, driven to the last extremity, she took her pencil and connected the milking department and the pail together by a stream of lead-pencil milk.

This touch of realism was effectual. He understood, but shook his head sadly and regretted that he had not the article desired.

So Harmony bought a box of matches and came home in a very depressed condition.

Our travelling party has dwindled to three again. Mrs. Russell was summoned back to America on urgent busi-

ness, and departed last week from Naples.

I suppose the archeologist saw her safely off. Judging from the shoals of letters that passed between them, and her increasing preoccupation of mind, I feel sure that Cupid has been doing some skillful shooting in their vicinity, and that Jack's chances are forever lost. But I'll try to find him another girl, so, bid him not despair.

I'm waiting anxiously for your letter to arrive to say when you are coming over here.

Do hurry up, LAURA.

The O. S. A. and Its Pictures.

A SUGGESTION TO PUBLIC LIBRARY COMMITTEES.

I don't wish to cross swords with W. T. on the merits or demerits of the pictures hung at the Forty-second Annual Exhibition of the Ontario Society of Artists, but when he says, "It would surely seem further desirable that a narrowing, selective policy, however conceived in the interest of high standards, should be avoided," and that the society is pursuing a policy of "narrow segregation," developing the Toronto artist to the exclusion of other portions of the Province, he is overlooking the fact that very few Toronto artists are native of that city, but are drawn there from all portions of the Province for the associations of their fellow artists, and the sale of their efforts.

How many people in a town of eight or ten thousand buy pictures, and how much stimulating art atmosphere would an aspiring artist find there?

There is no doubt in my mind that a great many buds of artistic genius are killed by the atmosphere into which they are born, and this does not necessarily say that they were not healthy buds. You will come upon a magnificent specimen of a pine; cut the surrounding forest away, leaving the pine exposed, what happens? The pine withers and dies. The proper environment is as essential in the development of art as in any other form of life. One of the main objects of the society is to foster art in Ontario, especially the young artist. It must be clearly understood, to hold a successful exhibition some standard must be maintained, and it is gratifying to think that this standard, as the years pass, is growing higher. Add to this the limited space at the disposal of the hanging committee, and it can be readily understood why there are only about one hundred pictures hung.

The O. S. A. welcomes with open arms the genius from any portion of the Province, and also tolerates a good deal of the mediocrity.

The saddest phase of artistic activity is the sinking into oblivion of so much of the promising young material. If art is to be stimulated in the other portions of the Province, it is then the duty of the cultured people of those portions to give it the stimulus.

The O. S. A. has held exhibitions in co-operation with local people at Provincial points in the past, and is quite open to do so in the future.

Why should not some part of the money spent for books for public libraries be spent in purchasing pictures? Is it not as necessary for a cultured person to have a knowledge of painting as well as literature? FRED S. HAINES. Meadownale, Ont.

The New Public Health.

QUESTIONS, ANSWERS, AND COMMENTS.

Conducted by Institute of Public Health, London, Ont.

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

PIMPLES.

What causes pimples? Will you kindly give me a cure? M. M. Kent Co., Ont.

Ans.—Pimples are caused by different things: some are due to infections of the skin by germs, and these can often be prevented by using a hypodermic injection of the same germ, grown out on artificial "media" (jellies or broths), then killed and mixed in the proper proportions with water, forming a "bacterial vaccine." Arrangements can be made for this work at the Institute of Public Health through a physician.

Other pimples seem to be of different origin. We know some that are the result of irritation of the skin from the use of certain drugs, given as medicine and excreted by the skin. Probably in digestive troubles mild poisons form at times, and which may act in producing pimples like the drugs. People about fifteen to twenty-one often have pimples without any assignable reason so far known.

Of course, there are certain diseases in which things that look like pimples appear; smallpox, for an example, from the acute diseases; syphilis, for an example, from the chronic ones.

As for a cure, the chief thing is to find the cause and stop its action. The vaccine treatment often succeeds for the first described form. In the others, the remedy is the same; find the cause first, then take corresponding steps.

H. W. HILL.

DISINFECTING A ROOM.

Will you kindly give full directions for disinfecting a room? A. M. W. Middlesex Co., Ont.

Ans.—First calculate the cubic contents of the room, i. e., multiply the length, breadth and height together, not bothering about small jogs, but taking the main measurements pretty accurately. For an L-shaped room, calculate each of the elbows separately and then add together.

Divide the result by 1,000. Thus, a room 10 x 15 x 20 feet, would contain 3,000 cubic feet: and divided by 1,000, would give 3. For each 1,000 cubic feet secure a 12- to 14-quart pail; an old one will do, if it does not leak anywhere: or use earthenware jars of the same capacity, free from any cracks. If there is over 1,000 cubic feet, but less than 2,000, use two pails; if over 2,000, use three. If over 3,000 feet, use four, and so on.

The temperature of the room must be above 60 degrees F.—better 70 degrees F. to 80 degrees F.

Prepare the following for each pail: 11 ounces potassium permanganate in one package; a mixture of formalin (40-per-cent. formaldehyde solution), 11 ounces; with water, 9 ounces, in a jug or other wide-mouthed container.

Get newspapers and a pail of water: tear the newspapers roughly into wide, long strips; double them, wet them; then, locking all the doors, except one to retire by, and shutting, but not locking, all the windows, stick the strips, by means of the water, over all cracks around window-frames, door-frames, etc., and put double sheets of the paper over all ventilators, disconnecting the stove-pipe temporarily if necessary to do this; also shut off any fire-place or other opening similarly. All this is to prevent the gas escaping.

If this is not done, the gas will escape before it has had any effect. Be sure especially to seal all doors (except the door by which you are to retreat) very closely, and all transoms leading to

other rooms, else the gas will be all over the rest of the house and make life unbearable.

Open all drawers of bureaus or cupboards or closets in the room, set any books you wish disinfected open on end, turning the covers back until they meet, and fastening them open with string or elastic bands. Spread out all clothing, bedclothes, etc., on lines strung across the room, and in general expose as much as possible of the surfaces of everything that needs disinfection.

Place the pails to cover equal areas down the room. In our example, the room was 20 feet long, and required three pails. Place them all in the middle line down the long way of the room, the first 3 1/2 feet from the end, the next seven feet away from the first, the next 3 1/2 feet from the other end. Into each pail empty the 11-ounce package of potassium permanganate; spread the crystals evenly over the bottom. Set down beside each pail the jug corresponding to it, containing the formalin and water. Then look carefully all over your preparations to see that you have missed nothing, and that the pails or jars are not close to anything inflammable, like paper or cotton dresses. Then place the pail of water and sufficient strips, ready wetted, outside the door you intend to go out by. Have the key of this door ready also, in the lock outside. Remember, above all, to be sure that the cat or the dog or the baby is not asleep in the room or hidden under a bed. Then take up the jug furthest from the exit, pour it into the pail; set the empty jug down; go quickly to the next furthest, and do the same; then to the last; skip out, close and lock the door instantly and plaster up the top, bottom, sides and keyhole with the wet paper, just as quickly as possible. Now climb up and look through the transom. The room will be as steamy as the kitchen on washday. If you can see to the bottom of the pails, you will note that they are already quite dry, and the beautiful permanganate crystals are turned to a dirty-brown mass.

Leave the room so for four hours. Then go to the outside of the house and open the windows to air the room. If they are above the ground floor, it will be well to fasten a stout cord to the upper sash before you set off the disinfectant, letting the cord hang down to the ground, so that you can pull the windows open from outside. This is the best method to date for gaseous disinfection for disease germs.

What happens is this. Permanganate and formaldehyde unite chemically, giving off a tremendous heat: in the formula here recorded, there is twice as much formaldehyde as is necessary to combine with the permanganate: it is this extra formaldehyde which is set free, literally boiled off, together with the nine ounces of water that was added. So you really have set free in the room the formaldehyde gas from about 5 1/2 ounces of the formaldehyde solution: the water from the whole 11 ounces; and the nine ounces of water you added, or about one pint of water in addition to the gas.

The reason for using the water is this: No disinfectant gas, even pure chlorine, will kill really dry germs in a really dry atmosphere; while the more humid the atmosphere, the less gas is needed. For moist germs, the humidity in the air is unnecessary, but as the germs in a room are likely to be dry, extra humidity is necessary, or else an immense amount of gas, if you trust to the ordinary humidity. Humidity is much cheaper than gas, of course.

The need for humidity is one reason why formaldehyde in the dry form is so inefficient. It costs more to begin with, being prepared by condensing it from the watery solution, thus taking out the water which itself is needed for efficiency: and which must be added again somehow, in use, or results will not be obtained. It can never be, weight for weight, more than two and a half times as strong as the 40-per-cent. solution: and often is not more than twice, or even one and half times as strong. The belief that one ounce of the solid formaldehyde is equal to four pounds of the 40-per-cent. liquid solution, is simply nonsense, as any chemist will tell you.

If you must use candles, it is necessary to fill the room with steam and

keep it so for at least half an hour after the candles are lighted. It is usually necessary also to use three ounces at least of the candles for every 1,000 cubic feet of space. Four times as much will be needed, if the steam is not supplied as described.

Sulphur may be used for disinfection, four pounds to the 1,000 cubic feet, burned in a pan, set over another pan full of water in view of possible accidents. Sulphur may be set going by putting a little alcohol in the pan and lighting it. Sulphur needs steam also, to kill dry disease germs: to kill bedbugs and roaches, etc., one pound to the 1,000 cubic feet is sufficient, and the steam is not needed. Sulphur, of course, is likely to discolor colored goods, tarnish metals, etc. Hydrocyanic acid fumes make a good disinfectant and kill vermin also, but its use is very dangerous except in the hands of an expert, as the fumes, as well as the solution, are both very rapid and powerful poisons. Formaldehyde disinfection as described above cannot be trusted to kill bedbugs or flies.

Disinfection by gas has been abandoned in several leading cities after scarlet fever and diphtheria, not because it was inefficient, but because the diseases are not conveyed through undisinfecting rooms sufficiently often to make it worth while. In Providence, where disinfection for these diseases was abandoned, both scarlet fever and diphtheria diminished—only slightly, it is true, but enough to show that abandoning disinfection had done no harm.

Practically the only need for disinfection nowadays by gas following our ordinary infectious diseases is found in tuberculosis. When a case of lung tuberculosis in the open stage, dies, or removes from a room, the room should be disinfected if it is to be occupied within a month or two. The germs die out of themselves usually in that time, unless the house is exceptionally dark and damp.

Of course, open cases of tuberculosis should not be living indoors at all, so there should be no need for gaseous disinfection of even their rooms.

In all cases of infectious disease, the bedclothing, nightgowns, personal clothing, handkerchiefs, etc., of the patient should be boiled or chemically disinfected by immersion in five-per-cent. carbolic acid.

H. W. HILL.

A FOOLISH PRACTICE.

I know a farmer who waters his horse or cow with a pail which he afterwards uses for the family drinking water without washing it. Is this practice likely to carry any disease?

ENQUIRER.

Ans.—The chief diseases which may be carried to the human by drinking from the same pail, unwashed, as a horse or a cow, are from the horse, glanders; from the cow, tuberculosis. It is customary to give a drink to a horse suspected of glanders in order that, while he keeps his head down, the discharges in his nose may run down to the nostrils and be more readily seen and examined. So the dangers in such cases must be evident. Cows, when tuberculous, snort out discharges containing tubercle bacilli at times, and might thus infect the pail, or from their mouth drawings.

Doubtless some other infections of both animals, for example, actinomycosis, might thus be carried. At best, it is certainly an exceedingly shiftless and silly proceeding, even if the horses and cattle are well, and the people also. It is on a par with kissing cats or letting dogs lick the hands, since we are continually putting our hands into our mouths or touching with them things that go into our mouths.

H. W. HILL.

A DELICATE BABY.

I would like your opinion on a delicate baby. Is now eight months old; has always had weak digestion and poor assimilative powers.

Am feeding cow's milk and Mellin's Food, the milk diluted with four ounces water to twelve of milk, feed only every three hours during the day, and not at all during the night, giving about six ounces at a feeding. Baby does not seem satisfied, seems hungry all the time, spits up some of his food between

feedings which is generally quite sour. Is very constipated at times, then is taken with looseness of bowels.

1. Would cutting teeth cause this?
2. Is the baby overfed that makes him spit up between feedings, as he only weighs ten and three-quarter pounds?
3. What are the symptoms of malnutrition?
4. Is a teaspoonful of lime water four times a day too much?
5. Which is best for sour stomach, lime water or fluid magnesia?

Algoma, Ont.

K. J. B.

Ans.—1. I am sorry that we cannot help you to treat the baby. Long-distance diagnosis and treatment in the case of humans is too risky for any reputable physician to undertake. We have an absolute rule against it. From the symptoms you describe, the child might have much or little wrong. The only right and proper advice is that you see the best baby-doctor you know of and follow his advice.

2. No. Cutting teeth as an explanation of such babies' troubles is well exploded. It never had any foundation but tradition and ignorance.

3, 4 and 5. See answer to No. 1.

The individual case of disease requires always and invariably, first and foremost, a diagnosis, the determination of what is actually wrong. Then comes the hunt for the cause. The plan of treatment is simple, after the cause is found. It is for the first two things that the expert physician is especially needed. No amount of written or verbal description of a case, even by one physician to another, justifies the physician in treating without a personal examination. A description by a non-medical person is still worse.

H. W. HILL.

ANNOUNCEMENT.

The staff of the Institute of Public Health are available for engagement to give public-health lectures to clubs, schools, societies, etc., the only cost being travelling expenses.

Moths and the Best Means of Eradicating Them.

[A paper given at a meeting of the Wardville Branch of the Women's Institute, by Mrs. J. A. Dowdell.]

There are two kinds of moths which have proved themselves enemies of the housewife,—the clothes moth and the buffalo moth.

In May, the clothes moth begins to fly about our rooms. It is a small, light-buff-colored miller, dainty and beautiful on close inspection. Its highest mission seems to be to teach us to set our affections only upon incorruptible treasures, which "moth and rust" cannot destroy.

But it is necessary to keep a sharp lookout for the safety of our furs and flannels. In the first place, we must carefully put away everything we can, upon which it will lay its eggs. If we pack away our furs and flannels early in May, before the moth has begun to lay its eggs, and leave them in boxes or bags so tight that the flying moth cannot squeeze in, no further precaution is necessary. Clean paper bags are recommended for this purpose—those used for flour and meal bags—or you can purchase at the drug store bags made for that express purpose. They should be without holes or opening anywhere. These bags when filled and closed firmly, may be put away on closet shelves, or in loose boxes, without danger to their contents so far as moths are concerned, without need of moth balls or other strong odors to drive them away.

When putting away furs, beat them well. If you delay putting them away till June, examine the furs well, shake and beat them thoroughly in order that any moth eggs that may possibly have been laid in them may be thoroughly removed or killed. Woolen garments must not hang in closets through the summer, in parts of the country, where moths abound. They should be packed away in tight trunks or boxes, or sealed up in bags. Woolen blankets must be well shaken and carefully put away unless they are in daily use. Early in June the larvae of the moth begin their ravages, and then, unless you dwell in places where moths are not found, look sharp, or you will find some precious thing that you have forgotten, already

more or less riddled by the voracious moths. It is their nature to eat until they have grown strong enough to retire from the eating business and go into the chrysalis condition.

Worse still than the ravaging clothes moth, is I believe, the buffalo moth, or buffalo carpet beetle. This beetle is originally a European insect, and is found in all parts of Europe. It is not really a moth, but the larvæ, or grub, of a very small beetle. The beetle itself feeds on the pollen of flowers, and may be found in early spring in tulips, and on other blossoms. From these, it flies into the open windows, and, dropping down on the floor, proceeds to the nearest carpet, or rug, or curtain, as the case may be, and deposits its eggs. From these hatch out the grubs familiarly known as the buffalo moth. The latter word is applied to them, no doubt, because the havoc they create is similar to that caused by the ordinary clothes moth. The name buffalo is derived from the fancied resemblance of the grub to a buffalo. This is based upon the insect being broader toward the head, and covered with hairs.

The beetles are extremely small in comparison with the size of the grubs, and are really very pretty objects, being marked down the middle of the back with a broad line of red, and mottled with gray and white. As they appear early in the season, it is advisable to put wire screens in the windows as soon as the weather permits of their being kept open. Once they have gotten in a house, it is a matter of constant vigilance to keep them under control, but by destroying all specimens that may be found, and from time to time overhauling fabrics that have been stored away, they may be prevented from becoming a serious pest.

In Europe, the insect is not especially noted as a household pest, and we are inclined to think that this is owing to the fact that carpets are little used. It is a well-known fact that the carpet habit is a bad one from other points of view, and there is little doubt that if carpets were more generally discarded in our country, the buffalo moth would cease to be the prominent household pest that it is to-day. There is no easy way to keep it in check. When it has once taken possession of a house, nothing but the most thorough and long-continued measures will eradicate it. At house-cleaning time, the rooms should be attended to one at a time. The carpets should be taken up, thoroughly beaten, sprayed out of doors with benzine, and allowed to air for several hours. The rooms themselves should be thoroughly swept and dusted, the floors washed with hot water, the cracks carefully cleaned out and kerosene or benzine poured into the cracks and sprayed under the baseboards. The extreme inflammability of benzine, and even of its vapor when confined, should be remembered, and fire carefully guarded against. Before relaying the carpet, tarred roofing paper should be laid upon the floor, at least around the edges, and when the carpet is relaid it is well to tack it down rather lightly, so that it can be occasionally lifted at the edges and examined for the presence of the insect. Later in the season, if such an examination shows the insect to have made its appearance, a good, though somewhat laborious remedy, consists in laying a damp cloth smoothly over the suspected spot of the carpet and ironing it with a hot iron. The steam thus generated will pass through the carpet and kill the insects immediately beneath it.

Blankets, furs, or other articles, that have been stored away for the summer, and found to be infested, should be put into tight chests or drawers and treated with bi-sulphide of carbon. This is a disagreeable smelling liquid, which should be poured into a saucer on the top of the contents of the box. This should be tightly closed up and left for forty-eight hours. The fumes, being heavier than air, will penetrate everything contained in the chest, and will kill all the grubs and moths that are among the contents. It is well to perform this operation in an outhouse, as the fumes of the liquid are very inflammable and explosive, and therefore it should not be used where there is any fire or light.

[Note.—Tight cedar chests are excellent for packing woollens in during the summer. In with the articles may be

sprinkled moth-balls, to be bought at any drug store, or a bottle of chloroform, uncorked, may be placed in the chest. Of course, in this case, care must be taken not to inhale the fumes when the chest is opened. Windows should be opened in the room before the lid is raised.—Ed.]

LABOR - SAVING DEVICES.

[A paper given by Mrs. W. J. Nott, at the MacLennan Branch of the Women's Institute.]

The first article I will mention is a clinical thermometer. You may have the good fortune to never need one, but if there are children in the home you are more than likely to. You think the child is a little feverish, but if you can take his or her temperature, respiration, and pulse, you will know if there is danger, and will take prompt measures to prevent a serious illness.

Now, I am just going to tell you of things I have found to be labor-savers and conveniences, so if I seem to be egotistical I erave your pardon. As Brutus said, "I speak, but I do know," so I am just going to speak of what I have proven to be good. The planning of a kitchen looks to more than four bare walls, so I will start with it.

The kitchen cabinets are good, yet, if you are building a house, you can do very much better than buy one of them, or you can have a carpenter build what you have space for, cheaper and better than one of them. Perhaps some of you know I built one for myself before I saw any of those nice ones you all have. Yet, for me, mine fills my needs much better than one of them could do. If you will pardon me, I will give you some idea of the uses of mine, a zinc-covered table. I think the quality of zinc used in some of the cabinets is not good, but I have found mine quite satisfactory. It is so easily cleaned. I wash dishes or bake on it. I have a row of drawers above the table which hold nearly all the dry ingredients used in baking and cooking, and cook-books. Below the spice drawer are the separate spaces for knives, forks, spoons, and other small things, while above them are shelves for dishes, so that as each dish is wiped, it is put in its place without taking one step to do so. The top shelf is so high I use it for patterns. Below the table, three-fourths of width is used for drawers; the top one holds 125 lbs. of flour, and a hole in the table makes it convenient to get at same. Below are two more drawers, one divided in three sections, the other in five, as the depth of table makes the drawers so large. I used to have to go upstairs if I wanted a patch of any kind, so I have a section for patches, another for darning materials, stockings that need repair, another for any other article in the same need, as so often we cannot repair articles just as we iron them, and do not want to have them lying around till we can. Then there is a tea and hand-towel space, and a good large napery space. I used to have to keep table-cloths, doilies, and napkins, in the bedroom dresser, as I had no satisfactory place for a side-board, so have none; now they are near the table. Two more spaces I use for children's dresses and working aprons. The rest of space under table I used when I made it for a kettle-closet, but I have since turned it into a bread-making cabinet. I have lined it with builders' asbestos to make it fireproof, and have three shelves in it. I used two old stove grates for two. I have a very small lamp. The oil-holder I made out of a tin box, as I could not get a small lamp, and had an old burner and glass. This sits on the floor. It takes a very small blaze, even in the winter, to keep it at right heat. I use a dairy thermometer in the dough.

I have a bread-mixer. I like it. Even my little four-year-old girl can mix bread with it. If I see that the thermometer is at 80 degrees, and do not neglect my bread, I know I am making the best bread that the flour will make. My child can be taught with this to make bread. Lois Evans, a girl eleven years old, took first prize in a contest over 6,000 girls.

A cabinet of this kind for bread can be made out of a packing-box. On one side of cabinet I hang all the small cooking and baking utensils and lids. Here also is a tap from the soft-water tank above, which holds five barrels of water, enough soft water to do us all winter. I use it for many household uses. A double shelf reaches from cabinet to pantry door, on which, in summer, I put the blue-flame coal-oil stove. I preferred a "blue flame," as it is considered safer than gasoline, and I have children who might meddle with the gasoline. This is one of the comforts for hot weather, and we find it very useful to keep our potatoes from freezing in the cellar in winter. It is not an expensive luxury, and it does not consume much oil to do considerable cooking.

I also use a steamer to cook one dish above another, as the oil stove generates heat enough to cook several. I always cook my porridge at night. In summer I start it on the blue-flame stove, then pack away in the fireless till breakfast. If I plan on boiled beef, I start it before I turn the blaze out, and put it in the fireless till dinner, and it is so much nicer than if it had been on the fire, and so much less work. You can go away and spend your morning picking berries and come home and have the meal on the table in a few minutes. The stove needs no polishing, and the oil makes no litter.

If we were building a new house, I would enlarge on this plan and not use my pantry. I would have a dumb-waiter in close proximity, and the dining-room so that the back of cabinet would have doors opening in it so that the table could be set from that side. I would use a table with castors to take the cooked food from stove to dining-room table. I like the oven thermometer; I can often glance at it from another room and know how the baking is progressing by it and the clock.

If you have a gasoline or blue-flame stove, you can keep your kitchen quite comfortable, even on a hot day. I do not like the idea of a summer-kitchen, as one can scarcely have conveniences everywhere. If you like it better, you can leave the convenience in a pantry. It leaves the kitchen as a dining-room, and not a workshop, and so it looks neater, yet I think it makes more steps. The planning of our kitchen so as to save steps is the most important part of the house.

I got a refrigerator last summer. It is fly-proof and cool, and is good even without ice a large part of the time; yet, if you have an ice-house, as every farmer had in my part of Michigan, a zinc-lined box below the ice is fine. It wastes ice, yet it saves the trouble of digging it out, and whatever is put in the box keeps nicely, so is less trouble than a refrigerator.

My sisters have their homes heated by furnaces, which certainly do away with lots of dirt and dust. A coal stove comes next in cleanliness, but with our abundance of wood, and with our engine and sawing outfit, I expect to burn wood as long as we are on a farm.

Among the small things, I'll just mention one, an extension strainer, especially good for straining cream; just stretch it across your churn and pour the cream through it.

A simple device for hanging up clothes is to take a stick or rod, a broom-handle, if long enough, is good, take two blocks and bore a hole in each the size of your stick; place it into them, then screw each block to either wall of closet. Now put coat or suit on, and the edge of each suit or coat or skirt is in sight, and you can put a lot of clothes in a small space. I made a lot of hangers out of barrel hoops.

If there is a baby in the house, as soon as it cannot be kept in the carriage, get a large packing-box and pad it and put castors on it, and you have a happy home for the baby, where he can develop and not be underfoot, and does not need watching all the time. Add a jumper for exercise, and you will have a happy baby. Treated thus, babies do not learn to creep, but walk first, and they are so warm and comfortable. My boy spent a large part of his time in his at 13 years.

Now, for wash-day, use a washing fluid. Put the clothes on to boil, take out and put in washer and wash for a few minutes, and wring out. Give two rinsings, and your clothes will be ready to hang out. I have a vacuum washer, and am not tired after doing a washing with it. A wringer is one thing I cannot do without. I have a simple and yet one of the best ironing-boards I have ever seen. Anyone can make one who has the material and time. Take four strips of wood for a frame; the leg works as a lever, which tightens the board to the table or window. An ironing-board is always ready to use, and even if you only have to press one article it saves time.

I have practised this for a good many years: When putting down a carpet on a room, first cover the floor deeply with papers from $\frac{1}{4}$ to $\frac{1}{2}$ inch deep, then paste over the top a covering of strong paper, then lay down a layer of loose papers. When lifting the carpet, this layer will have the dust on that has gone through the carpet, so I carefully fold those together and burn. If there is very much walking on a carpet, it will need more than one layer. By washing around the edge and laying down one fresh layer, the work is made very simple after the first year.

The carpet-sweeper is a nice thing, and picks up the dust to a large extent instead of throwing it in the air. But I have always found I had to use a broom as well.

This spring I purchased a vacuum-cleaner. They are good, yet, for one person, they come expensive, and it is not easy for one person to work one. If there are children in the home, they can use it, although mine are rather small yet to clean a carpet with it.

We got a galvanized bath-tub made to order. The size is 4 feet long, 23 inches broad, and 15 inches high. It does not require nearly as much water as a larger tub. You can have a comfortable bath with as little as two pails of water, and less if water is scarce. It is so light it is no trouble to carry it to any room you wish to use it in. I also made a folding screen, which is a necessity where there is no bath-room, as in winter we like to take our bath in a warm room, or even beside the stove.

I find a small folding sewing table, with a half-inch pine top so convenient. My father made mine.

A commode chair can be made from a chair with a loose back. Bore a circle of holes and cut out, then make a box to hold vessel, now replace back securely and upholster. It is very comfortable where there are children or old people, or in sickness.

In making a fireless cooker, the main idea is to make it to hold the heat. I took a large lard bucket, pasted paper in it, then packed it with paper for two inches, then finished with wool waste, then made a lining to fit my cooking utensils. I use granite pails with saucer lids. The only trouble there is with the homemade ones is to get a tight-fitting, covered cooking vessel. I made a wool cushion for top, and a cover to fasten down tight.

Perhaps you may say, "I cannot use a saw, plane and hammer," but if you have a workshop you can do much more than you imagine. I did not know I could handle any tools but scissors and needle, which I had been led to believe I excelled in, till nearly eight years ago. After our first boy went to be with Jesus, I was so lonely I could not settle down to sew, so went up the back-stairs where there is a workshop, thinking I would see if some of the matched-lumber pieces would make a wood-box. I started fitting them together till I found enough, then wanted husband to saw them for me and I'd try and nail them together. He was too busy, so I tried it myself, and found out I really could do a decent job. Then I grained it and the cabinet later. Husband said I had been learning all my life, and did not know it, as my father was a carriage-builder. A man cannot always be got just when you want one.

Now, I would like to give you a bill of expense of things mentioned. The men would not do without any piece of machinery they need to help them in their work, and why should we? If we let them see we really need it, they will get it, with only a very rare exception.

There is bread and BREAD

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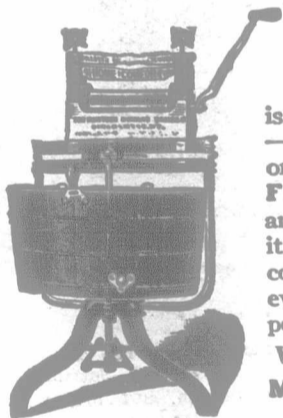
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I bought a cheap oven, but as they are not good I will not include it. I have heard the more expensive are. My jumper is homemade. I will not include the vacuum-cleaner.

Hope's Quiet Hour.

How Can Ye Believe?

How can ye believe, which receive honor one of another, and seek not the honor that cometh from God only?—S. John v.: 44.

We hear a good deal about the "difficulties of belief," and some people seem to imagine that faith will come to them without any seeking on their part, faith which is not desired sufficiently for effort. Why should we lose our reason and ordinary common sense when studying theology—the knowledge of God? If a man wants to be a doctor he studies medicine, if a lawyer he studies law, if a musician or an artist he studies the science of music or the latest theories about art. If a woman wants to be a housekeeper—one worthy of the name—she is always on the alert for a new recipe, always putting time, intellect, and money, at the service of her beloved profession. She does not skip the "Ingle Nook" for the sake of reading "Stock Gossip." In every business on earth—except religion—people expect to work and study along the lines they wish to gain success, but it is not always so with the people who say sadly that they have no faith in the religion their mothers taught them. Usually they profess to lament the loss of their childhood's faith, and they devote themselves eagerly to worldly pursuits as if they had nothing to learn about the Christian religion at all.

"How can ye believe?" says our Lord, when the only thing that you are seeking with earnest enthusiasm is the honor that comes from men. Determined, long-continued effort, is the well-trodden road to success. "Ask, and ye shall find," said One Who is always glad to give the light of the Holy Spirit's guidance to those who earnestly desire it. The lukewarm will find that the faith which they do not value is of very poor quality, and unable to stand in the day of severe testing. "The kingdom of heaven is gotten by force, and they that thrust men take it by force." (See margin of St. Matt. xi.: 12.) We often see men pushing their way through a crowd to reach some earthly goal. Do they run the heavenly race with the same determined purpose to succeed?

Those who lament their weak faith can find God if they seek Him with all their hearts. As a man learns the science of medicine by long-continued study of that science, so we learn more and more of God by studying about Him and seeking God by studying about Him and seeking to be much with Him. St. Paul says: "Faith cometh by hearing, and hearing by the word of God." If you seldom have study prayerfully the message God has already sent to you, why should you be surprised if you don't understand His ways? How can you believe, if you are only vitally interested in worldly concerns?

How can you believe unless your heart is jealously guarded against debasing thoughts and desires? "Blessed are the thoughts and desires? "Blessed are the pure in heart: for they shall see God." One sin intentionally cherished is enough to dim the vision of His face. Perhaps it is a sin against love. It may be

that you are keeping up a grudge against someone. It is sometimes very hard to forgive, but are you honestly trying to feel kindly towards the person who has offended you? Do you pray for power to forgive, remembering that "if ye forgive not men their trespasses, neither will your Father forgive your trespasses?"

Don't sit down comfortably and say that you can't believe in the Christian revelation. Do you know anyone but JESUS who has shown himself able to inspire millions of men with high ideals, or lift them out of the misery of degradation and vice? When you find another leader who has done and is doing that, it will be time enough to compare his claims with those of Him Who is daily making good His tremendous declaration: "I am the Light of the world."

Obeys the teaching and try to follow the example of Christ until you discover another leader who can point and lead you higher. When John the Baptist pointed out a greater Leader to his disciples, two of them left his side to follow the One Whose shoe their former leader was not worthy to untie. Follow the highest when you see it, or you are not living a true life. Study the marvellous record of a Life which is steadily bringing light into dark places, and try to model your life along the lines of truth, purity, kindness, and righteousness. Why does it matter so much what you do? Because your life will do much to draw others near to God or drive them away.

Why did the Chinese Government appeal to the Christian churches in China to set aside April 27, 1918, as a day of special prayer for the new Republic? It is the first time in the world's history that such a request has come from a non-Christian nation. It was because the Chinese could see the power of Christianity in the lives of Christians.

Why does a talented Japanese writer say that he rejected Christianity? It was because the Christians he knew best were preaching Christ, but not living like Him. The power of a life that is really consecrated to Christ, really living for Him and reflecting His light, is absolutely incalculable. If your faith be only a matter of intellect, it will do very little to convince others. To believe, as a fact of history only, that the Founder of Christianity was crucified and rose again, will not inspire anyone who knows you with a desire to find Him Who is "The Truth." But if you live radiantly in the gladness of His felt Presence, if you are holy in thought, kind in word, and righteous in act, the people who know you will seek to know your Master also.

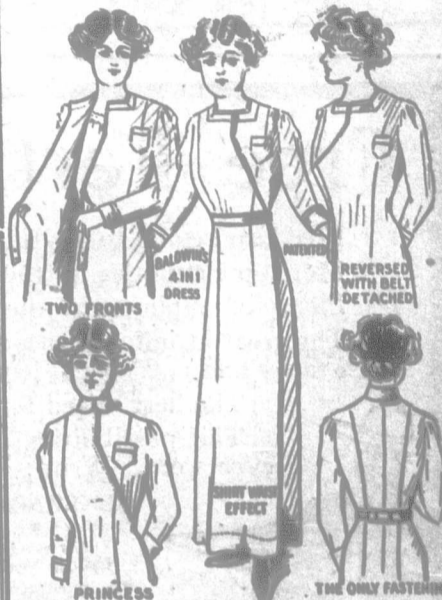
"Christianity has abler advocates than its professed defenders, in those quiet and humble men and women who in the light of it and the strength of it live holy, beautiful, and self-denying lives."

How can strangers desire to follow Christ when His professed disciples sacrifice honesty for gain, and purity for a loveless, wealthy marriage? How can they be attracted by the love of the Master when His chosen witnesses are so eager about the latest bit of scandal? How can they believe in the priceless value of the kingdom of heaven, when those who claim to belong to that kingdom evidently are interested only in their earthly concerns? Is it our fault that they do not believe? If we are hypocrites, professing belief in One Who is crowded out of our lives almost entirely, shall we not bring down on ourselves the terrible condemnation, just addressed to scribes and Pharisees: "Woe unto you, . . . hypocrites! for ye shut up the kingdom of heaven against men: for ye neither go in yourselves, neither suffer ye them that are entering to go in."

How can ye believe? Are you like the noble Jews in Berea who listened to St. Paul's message "with all readiness of mind, and searched the scriptures daily, whether those things were so?" No wonder many of them believed. They were in real earnest in their search for truth, not satisfied that they knew already everything that could be known about spiritual things. They not only read, but "searched" the scriptures daily; because they wanted to find out the truth of God in order that they might believe with their minds, although their

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hearts told them that St. Paul was not deceiving them. We are not children; we must believe with the heart, and with the understanding also. Let us never imagine that we know everything, and can safely give up the study of God's Word. Why, if we were only studying one of the things He has created—an ant, a bee, or a flower—we might devote a life-time to the one subject and then realize that there was infinitely more to learn. If there is no possibility of our exhausting the subject of one tiny bit of creation, there is certainly no possibility of our gaining an absolutely perfect knowledge of God—which is eternal life—here in this short earthly life.

Read the Gospels and behold the Man! If four unlearned writers invented that matchless Person, each describing Him from a different point of view, and yet showing us the same Holy One of God, then we must believe that the four Evangelists were all marvellous geniuses, and that they each wrote their story for no object, and made it absolutely proof against the most searching criticism. Read the Gospels, with an honest desire to find out the truth of the record, and say—if you dare—that the writers were either deceivers or weak, deluded, credulous people.

It is not fair nor honest to refuse belief in Christ, unless we have learned to know Him well. Christianity is not a temple that can be understood or seen to real advantage by outsiders. The Tabernacle in the wilderness was the place where God met His people, but outwardly it was only a plain, wooden erection, covered with leather curtains. Seen from within, it was ablaze with bold and rich embroidery. A certain king once said that he loved his tutor as much as his father, because if one had given him life, the other had taught him to live well. To whom can we go, if we turn our backs on Christ? Can anyone else help us to climb so near to God? Can any other heal the awful disease of sin? "This Man receiveth sinners, and eateth with them," was the taunt hurled at JESUS long ago. He is still ready to meet us in wonderful daily comradeship. He is still the Friend of sinners. How much those miss who try to live their lives without Him!

DORA FARNCOMB.



Winifred Stoner and Her Mother.
(The little Pittsburg girl whose wonderful advancement is largely attributed to her mother's direction and influence.)

they staunch and sturdy, rather than whimpering and dependent? Do they play fair? Do they scorn meanness of any kind? Are they generous? Are they sincere and unaffected? Are they true as steel, ready to stand up for principle, yet open-minded enough to listen to the "other fellow's" argument, and give it the honor due to it? Are they big enough to forget self, realizing that in the face of all that is to be learned and done in this big universe, it ill behooves anyone to be conceited or self-centered?



Daphne Allen.
(The little English girl whose drawings made a sensation when exhibited in the Dudley Gallery.)

The Ingle Nook.

[Rules for correspondence 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.]

Is the Child of To-day Under-trained and Under-educated.

Last time we talked on the question as to whether Canadian boys and girls of to-day are being over-trained and over-educated. To-day, perhaps it may interest us to query as to whether the opposite is true,—whether they are being trained and educated enough.

Will you mind if I throw the responsibility of judging upon you? Take at random any ten children of your acquaintance, not "picking and choosing," but taking them as they come. . . Are their manners perfect? Do the boys raise their hats to you when they meet you on the road? Do they stand when you enter, as a visitor, the room where they are? Do they eat nicely, or do they chew audibly and open-mouthed, shovel food in with their knives, or commit the thousand and one other offences against civilized table behavior? Do they speak good English?

Are they mentally quick and alert, say, as "Rebecca of Sunnybrook Farm"? Do they seem to be able to think on their own account? Are they able to concentrate their attention on either book or hand work, and keep it so for any length of time? Are they interested in anything but play? Do they like manual labor? Do they like books? Have they as broad a general fund of information as you would expect in children of their age?

Finally, and most important: Are

I picture a paragon?—Why, yes, of course. What is the use of setting a low ideal? "Not failure, but low aim, is crime."—And was it Emerson who said, "Who aims a star, strikes higher far than he who aims a tree"?—I have not the book at hand to verify the quotation, so the words may not be exact, but the sentiment is.

By the time you have answered these questions in regard to each of the ten children, I think you will agree with me that the average child could stand—well, just a little more training than he usually receives;—and yet the questions I have asked do not require that the one who comes up to them satisfactorily be in the least a prodigy.—Now, do they?

It is a bit of a pity that more people do not understand the full meaning of the word "education." Many people seem to think that the home has very little to do with education, that its function, so far as the child is concerned, is to feed and clothe and house him. Religious instruction is left for the Sunday-school teacher; everything else to the school-teacher. It is never for one five minutes reflected that the most important part of the child's education is received right in the home; that the opinions and character of the parents, their conversation, their general conduct, form the greatest influences on the education of the boy that he will ever receive.

Education ("e"-out, and "duco," I lead) means a leading out or develop-



"What's flour *gluten*, Bud?"
 "It's what makes your dough *rise*, Rose."
 "Yes"—she encouraged.
 Added Bud very sagely:
 "Makes it *rise* in the mixer and *expand*
 "in the oven. It's the *elastic* part of
 "flour—*absorbs* all the water and milk
 "—and things."
 Rose grew interested.
 "FIVE ROSES, said Bud, is exceedingly *rich*
 "in gluten. I s'pose because it's *all* made
 "from *Manitoba* wheat. Takes up a lot
 "more water — makes those *fat* loaves —
 "lasts *longer* too."
 "Saves money, doesn't it?" asked Rose.
 Bud in a big voice:
 "The fat loaf makes the fat pocketbook."
 Use FIVE ROSES always.
 And Rose said YES.

Five Roses Flour

Not Bleached



Not Blended

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ing of the whole child, body, mind, and soul. It is in the home that his earliest and most lasting impressions are received. It is there that his tendencies are created. It is there that his opinions are formed and consolidated. It is, in short, to a great extent, the atmosphere of the home that will determine whether he is to be a man of honor and usefulness or a conceited prig, a sneak, a bully, or a grafter. Occasionally, it is true, a fine man may emerge from a very poor sort of home, or a poor sort of man from a fine home, but these are, as it were, "sports." We cannot account for such deviations,—heredity may have something to do with it, and, perhaps, after environment and powerful after-influences,—the fact remains that the home forms the great mass of people.

If, then, parents would turn out more than creditable families, let them look to themselves first of all. And let them beware of false values. To make a worth-while man of your boy, a worth-while woman of your girl,—this is the great, important thing. Mere pedantry does not count, mere faculty for making money does not count: honor, and generosity, and usefulness, and broad-mindedness do, infinitely. So let the home do its great duty.

Even in less important things—yet important enough—it is to be feared that there is failure to give the home atmosphere that means training in itself, without effort on the part of the child. In a home, for instance, where the manners of the inmates are irreproachable, the child grows into irreproachable manners as easily and steadily as he adds to his stature.

Now, to go a step further: I don't believe that, as a rule, we give children credit for being able to grasp and assimilate half as much as they are able

for," in an intellectual way, and that without doing them an iota of harm, either mentally or physically.

You may have heard that it is often wise to let children read books just a little in advance of them—by reaching steadily upward they grow. You may have heard, also, of the marvellous power accredited in these days to "suggestion," suggestion by word and surroundings. As a third in the trio, you may have heard, moreover, of the almost startling results attained by keeping children constantly interested,—and just here you will think of the description given in to-day's "Letter from Abroad," of the wonderful Montessori school in Italy, which the whole educational world is watching.

You may not have heard, however, that, by enlisting the services of these three geni in individual cases, some almost incredible results have been attained with children of a very tender age,—results that make us willing to believe Sir Oliver Lodge's forecast that in the age to come the common men and women may be as the geniuses of to-day.

And now, are you curious? For some time of late, it appears, an investigator into such subjects, Mr. H. Addington Bruce, author of "The Riddle of Personality," and other books, has been much interested in these very children referred to. Last fall he wrote an article which appeared, if I remember rightly, in "Good Housekeeping," under the heading, "Making the Most of Childhood"; another along somewhat similar lines, by the same author, was published in "McClure's," and so we have our information boiled down and ready to use. I am sorry, however, that we have not space in which to do more than recapitulate very briefly a few of the main facts

in regard to the young "prodigies" whom Mr. Bruce had under consideration.

First of all there was young William James Sidis, son of Dr. Boris Sidis, who, at the age of eleven, entered college, immediately amazing his instructors by his wonderful grasp of higher mathematics.

Almost as interesting is the account of Norbert Wiener, son of Professor Wiener, of Tufts, who matriculated for Tufts College when but a youngster of thirteen, and graduated in his sixteenth year.—And that of Lina and Adolph Berle, children of Dr. Berle who entered Radcliffe College and Harvard University at the early ages of fifteen and thirteen years.

Another United States prodigy of whom Mr. Bruce told, is Winifred Stoner, the wonderful little daughter of Dr. Stoner, of Pittsburg, to whose mother's influence and training much of this little girl's unusual advancement has been ascribed. At five, Winifred wrote a play which she and other children performed. At six, she had learned Esperanto. At seven, she brought out a book of poems entitled "Jingles," and last year, at the age of ten, "a sequel to it." She now speaks fluently, French, German, Spanish and Italian, and is well grounded in geography and history, especially the history of English literature. "Withal," as Mr. Bruce remarks, "she is no anemic little old woman, her nose perpetually in books. On the contrary, she is one of the most human of children, delighting in life outdoors. . . . She can outstrip her boy friends performing on the trapeze and running races. . . . She is on a par with them in playing ball, swimming, and riding horseback, but also delights in playing doll with her little girl friends."

Turning to England, Mr. Bruce finds Daphne Allen, now-thirteen years of age,

the talented granddaughter of Ruskin's publisher, George Allen. This little lady, over whose drawings exhibited last year at the Dudley Gallery, artistic London went wild, is also described as a happy, healthy child, like Winifred Stoner, utterly free from the slightest suggestion of self-consciousness and conceit.

"Children of doctors and professors" says someone, "Children of highly-educated people"!—But Mr. Bruce promptly flouts the idea implied by bringing to the fore instances of children of comparatively uneducated people who have astonished the world; for instance, George Bidder, the son of an English stone-mason who at the age of ten accomplished marvellous feats in mental arithmetic, and eventually became a great engineer; also "Marvellous Griffith," the Indiana "lightning calculator," who could raise a number to the sixth power in eleven seconds.

"Prodigies!" again exclaims the doubtful one; but Mr. Bruce is inclined to throw much of the credit upon influences and suggestions brought to bear upon the children steadily, and from earliest childhood. Where the parents have been educated, these influences and suggestions have been exercised by atmosphere, and by voluntary training. Where the parents have been uneducated, the precocious children have usually owed their precocity to early physical infirmity, or some other reason which prevented the dissipation of childish energy upon play, and compelled the little ones to fall back upon their own ingenuity for amusement and interest.—The boy, through playing with pebbles, etc., learns to calculate, to concentrate upon calculation, and so possibly to develop into a "lightning calculator."

Of course, something must be put down



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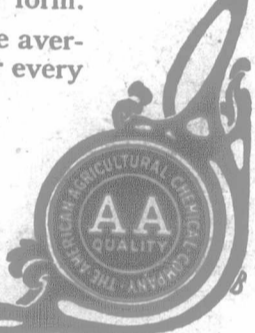
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to genius—although Dr. Sidis disputes the question, declaring training rather than genius to be the secret of his son's remarkable advancement. The point is this: Surely when such amazing results have been accomplished in a few instances, very considerable results may also be accomplished, by following out rational courses of development, with every child of average intelligence. Indeed, Mr. Bruce, after long study of the matter, has concluded that "any normal child can be wonderfully developed."

"Most children," he says, "are drawn hither and thither by a variety of interests. They have a real interest in nothing; they diffuse their energies; they concentrate their attention scarcely at all. In this they are encouraged by their parents, who, owing to the prevalence of a false pedagogical doctrine, are of the opinion that sustained intellectual effort must inevitably be harmful to the mind of a child. As a result, the average child grows up more or less scatter-brained, with habits of superficial thinking, and, worst of all, without the ability to utilize in any markedly effective degree its subconscious memories and powers."

He would, then, from the beginning, surround the child by an atmosphere suggestive and interesting. Prints of inspiring and interesting pictures should be a feature of the environment that meets the baby eyes; books should be constantly in evidence—for it is well known that the child who is turned loose into a good library has half his education assured; and the conversation and direct education of the child must be such as will stimulate his thinking, fire his imagination, and give him a thirst for knowing more FOR THE SAKE OF KNOWING IT. The child is bound to be active, mentally and physically. He can be just as happy and just as healthy if those activities are largely engaged in something that will count, work that, because of its interest to him, is play.

Well, all this is not very constructive, is it? It does not answer the question, "But what shall we do?"

All that may be solved in good time, if we set ourselves to it. The main thing is to realize, with the "Plain Country Woman" who writes so well in (Philadelphia) Ladies' Home Journal, that "The great universal affliction of the human race is lack of brains." That fact grasped, the next one presents itself—that this thing need not and should not be. And then the next is in sight: Begin with the children, and early,—not merely to cram them with knowledge, which is, after all, a very poor kind of education of itself,—but really to educate them, to make them the very best and fittest of which they are capable.

(To be continued.)

I have accomplished, or perpetrated, or achieved a dress!—a whole dress!—I am not sure which, as yet, for it has not been seen by any of my friends, and so I have not encountered any gushings of admiration or "damnings by faint praise" up to date.

In the meantime I am strutting, mentally. For, "sure," this is the first whole dress that I ever made, and so, bad or good, I am prodigiously proud of it. It is significant, however, that I say "dress," not "gown." As we used to say in school, gown "is when" you are in society, and are wearing a creation that makes the men love and the women hate you (please allow for exaggeration); "dress" denotes a much humbler "expression of mind." So now, having prepared you, I may say that my achievement is made of cotton crepe, that it cost just 25 cents a yard, and that the whole thing amounted to just \$2 in hard cash, and about \$12 worth of time. But, glory be, it IS cotton crepe, and will not have to be ironed.

I have learned a few things in the operation, too. Talk about adventure having fled this age! I warrant you that every novice who undertakes to make a whole dress for the first time, finds it "enow." For instance, my pink, (I've been dreaming pink, living pink, smothered in pink, for three weeks!) presented barriers in the skirt. First it was too wide,—overwhelmingly too wide; indeed I never realized, until it was basted up and fitted on, the real gentility of my proportions. Then began the taking-in business, and a whole series of bastings and fittings and rippings.

The plague of it is that now the skirt is just a mite too narrow, and all stitched and finished up, too! But I am consoling myself that willow-wand figures and hobble effects are still the height of grandeur.

To quit nonsense, I did hit upon one thing—necessity is the mother of invention, you know,—that worked out well, and may be of use to you. You know how hard it is to even-up a skirt around the bottom when you have to fit yourself. Well, you may have heard, as have I, of chalking the edge of a table and turning around against it (with the skirt on, of course), then measuring down; and you may have been caught, as was I, without a speck of chalk on hand. Well, I just got up against the corner of a table and stuck a pin into the skirt at the upper edge of the table, then I turned around, little by little, and so stuck in a whole row of pins. Then I took the skirt off, measured the total length of one that I liked, took the measurement from the edge of the bottom up to one of the pins, then with a tape-line measured the same distance down from each of the pins, turning the hem up and affixing a second row of pins preparatory to basting. As a result, my skirt is quite even around the bottom. You see the principle is that any inequalities in one's size will come above the line of the table, where the pins are in the skirt. Trusting that this may be of use to someone as verdant in regard to sewing as myself,—Cordially yours,

JUNIA.

EPSOM SALTS FACE WASH.

Dear Junia,—I have a recipe for the "face wash" made of Epsom salts asked for by "Amy," of Wentworth Co., and will gladly give it for the benefit of other readers. So many like it better than talcum on account of its not being visible when on.

Face Wash.—One-quarter ounce Florida water, ¼ ounce bay rum, ¼ ounce glycerine, ½ lb. Epsom salts, 1 pint rain water. Put all together and shake well, until salts are pretty well dissolved. Pour a little in palm of hand, enough to go over the face well, then step outside where the wind can blow on the face. Rub briskly with both hands—from forehead down—until the skin feels soft and velvety, then notice the improvement. C. H. M. Norfolk Co., Ont.

[Very many thanks, C. H. M. I'm thinking we'll all be trying this.—J.]

FRECKLE LOTION.

Dear Junia,—I saw in a recent issue that "Amy" found a successful remedy for removing freckles. I wish she would oblige by publishing it in the next issue, as I am troubled with them. I am a constant reader of your Nook, and in its columns have found valuable information. Thanking you in advance for your kindness, and wishing you every possible success. ENQUIRER. York Co., Ont.

We find that the following methods were given during this year to "Janet." Did "Amy" masquerade as "Janet" before? If not, we shall be obliged to her if she will tell us if one of the methods given to-day is the one that helped her, or, if not, what that one precisely was.

(1) Apply lemon juice, after washing, every night. Wear a "complexion veil" when out in the sunshine.

(2) Lotion: Grated horseradish root, 1 ounce; boiling water, 1 pint; borax, 2 drachms. Apply every night after washing with tepid water and good soap.

Seasonable Recipes.

Cereal Pudding.—Mix together 1 cup cooked cereal of any kind, ¼ cup molasses, ¼ cup milk, ¼ cup seedless raisins, 2 beaten eggs, ¼ teaspoon powdered cinnamon. Pour all into a buttered pudding-dish, and bake for 40 minutes in a rather slow oven.

Bread-and-Butter Pudding.—Place a layer of stale bread, rolled fine, in the bottom of a pudding-dish, then a layer of any kind of fruit. Sprinkle on a little sugar, then another layer of bread crumbs and of fruit, and so on until the dish is full, the top layer being crumbs. Make a custard as for pies, add a pint of milk, and mix. Pour it over the top of the pudding, and bake. Canned Plum Custard.—Put one pint

canned plums, stewed and stoned, in a pudding-dish, and sprinkle with 1/2 cup granulated sugar. Next make a cream as follows: Blend 2 tablespoons flour with 2 cups milk and cook together until thick and smooth. Remove from the fire and add 1 tablespoon butter and the beaten yolks of 3 eggs. Pour this cream over the plums, and bake for 10 minutes in a moderate oven, then cover the top with a meringue made by beating the whites of the eggs with 3 tablespoons powdered sugar. Brown lightly, let cool, and serve with cream. Any kind of stewed or canned fruit may be used.

Gelatine Dessert.—Dissolve 1 small package flavored gelatine in 1 pint boiling water, and pour half of it into a bowl or mould. Arrange fruit of any kind raw or stewed and drained, in the gelatine, and set in a cold place. When firm enough, pour in more gelatine (kept warm) and more fruit; let get firm, then pour on the rest of the gelatine. When stiff, unmold, garnish with fruit, and serve with whipped cream, slightly sweetened, and flavored with vanilla.

Pineapple Pudding.—Rub together until smooth 2 tablespoons butter and 2 of flour, then add to 1 pint scalding milk, and cook until thick. Add the beaten yolks of 3 eggs and 3 tablespoons sugar, stir for 2 minutes, then remove and cool. Add the juice of 1 small can pineapple, or a cupful of finely-shredded fresh pineapple, and fo'd in the stiffly-whipped whites of the 3 eggs. Bake slowly for about 35 minutes.

Orange Sponge.—Blend 6 tablespoons cornstarch in 8 cups milk, put into a double boiler, and cook. Add 1 tablespoon butter, 4 tablespoons sugar, and the beaten yolks of 2 eggs, and boil for 8 minutes, stirring all the time. Stir in the juice and grated rind of 2 oranges, and let the mixture cool a little. Beat up the whites of the 2 eggs to a stiff froth and fold in lightly through the rest. Pour all into a mould. When firm, serve with whipped cream.

Maple Mould.—Blend 4 tablespoons cornstarch with 1/2 cup milk, and add to 2 cups boiling milk. Let cook thoroughly, then add 1/2 cup maple syrup and remove from the fire. Add 1 egg, well-beaten, and a little vanilla or rose extract. Mix well, and pour into a mould. When firm, serve with cream, slightly sweetened and whipped.

Maple Pudding.—Heat 2 cups milk, stir in 2 tablespoons fine tapioca, cook for 20 minutes, and remove from the fire. Add the well-beaten yolks of 3 eggs and a pinch of salt. Stir again over the fire till it thickens, then let get cold. Add 1 cup chopped nutmeats (these may be omitted), and 1/2 cup maple syrup. Pile the stiffly-beaten whites of the eggs on top, and serve.

The Scrap Bag.
CAKE FROSTING.

When the top only of a cake is to be frosted, you can prevent the frosting from running down the sides by fastening a strip of greased paper around the cake. It should extend above the cake at least half an inch. Leave until the frosting hardens.

TO CLEAN A SUITCASE.

To clean a matting suitcase, first brush it free from dust, then scrub it with a mild suds made of rainwater and pure borax. Do not use soap, as that will yellow the straw.

DRY-CLEANING WHITE SERGE.

Unless quite badly soiled, a white or cream serge suit may be nicely cleaned as follows: Place the coat and skirt, one at a time, in a vessel, and cover with fine cornmeal or flour. Add 1/2 cup powdered borax, then wash the articles in the meal as though it were water. When clean, shake and brush thoroughly out of doors. It may be necessary to repeat the operation two or three times. If the suit is very dirty, send it to a cleaner's.

TO SAVE EMBROIDERY.

To prevent handsome embroidery under-skirt frills from wearing out at the bottom, stitch white-cotton tape all around on the inside.

EXTINGUISHING GASOLINE FLAMES.

Should it be necessary to extinguish gasoline flames, use milk instead of water. Milk forms an emulsion with the gasoline, whereas water only spreads the fire.

"Its Delicious Drawing Qualities"
Are manifested in millions of Teapots daily
"SALADA"

THE TEA OF STERLING WORTH
BLACK, MIXED or GREEN—Sealed Packets Only
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With All Latest Improvements
The economical, practical tractor for modern farming. Light in weight, strong and powerful, easy to operate. The real one-man tractor for belt or field work.

Special Heavy Duty Tractor Motor
Long stroke type. Large crank shaft, connecting rods and bearings. One-piece cam shaft. The Gibson is the pioneer light-weight tractor and no experiment. Will do any kind of farm work more cheaply than horses.



Buchanan's Self-Compressing Long Sling
—the result of 33 years experience in making Pitching Machines. Consists of three slings and sectional pulley for drawing ends together. Easy to operate, quick to work, and exceptionally strong. We make all kinds of Pitching Machines —Swivel Carriers and Tracks, Slings, Harpoon Forks, etc. Write for catalogue. M. T. BUCHANAN & CO., INGERBOLL, Ont. 2

WASHING COLORED EMBROIDERY.
It is always perplexing to know what to do with white articles embroidered in color. If not bleached, the white foundation is likely to turn yellow; if put in the sunshine, the embroidery is almost sure to fade. The following plan has been found useful: After washing the article, dry it in the shade. Next put it in an old pillow-case which has been dipped in very strong bluing water, and thoroughly dried. Hang the case, with the article inside of it, in the sunshine for several days.

TO MAKE A BUTTON-HOLE IN LACE.

To make a strong button-hole in lace, baste a strip of lawn firmly under the lace, then cut the button-hole and work as usual. When the work is finished, cut away the lawn close to the stitches with fine, sharp scissors, and you will have a firm button-hole.

THE VALUE OF PINEAPPLE JUICE.

During the last few years we have been learning of the medicinal effects of fruit juices, particularly as aids to digestion. No fruit has more value for this purpose than the pineapple, and many experiments with its juices prove it, says the New York Herald. A freshly-cut slice of the fruit laid on a piece of beefsteak will, in surprisingly short time, cause softening, swelling and partial digestion of the meat for a considerable depth from the surface. It is stated that bromoline, the active principle of the pineapple, has been used in the preparation of the well-known Masquera beef jelly.

BISHOPRIC WALL BOARD AND SHEATHING

Made with tough, fire-resisting, everlasting Asphalt-Mastic will give you a drier, warmer house, at lower cost, in a month less time, than if you used lath and plaster.

Bishopric Wall Board is made by imbedding kiln-dried dressed lath, under 500-lbs. pressure, in sheets of hot Asphalt-Mastic, the other side of which is surfaced with sized fibre-board.

Saves Time—Bishopric Wall Board comes in sheets 4x4 feet ready to go on. It goes on quick—far quicker than lath and plaster. It goes on dry—you don't have to wait for setting or drying as you do with plaster. You can get into the new house at least a month sooner if you use Bishopric Wall Board.

Saves Money—The first cost of Bishopric Wall Board is considerably less than that of lath and plaster. There is no expense for repairs, for neither dampness, vibration, settling of foundations, nor anything else will ever make it loosen or drop off the wall. Moreover, there is a substantial saving in coal bills, as a wall of Bishopric Wall Board is

Warmer than lath and plaster. The Asphalt Mastic in which the laths are imbedded is absolutely air tight, blocking all drafts, and a non-conductor, keeping the heat in in winter and out in summer.

Dryer—This Asphalt-Mastic is also moisture-proof. If your house is lined with Bishopric Wall Board you will never be troubled with that uncomfortable, unhealthy, dampness so common in plastered houses.

A Flat and Rigid Wall—Bishopric Wall Board is the only board made with laths. Laths are positively necessary to back up wall board to make it rigid and substantial—and to keep a perfectly flat surface. Without lath, wall board swells, warps, cracks and pulls away from the joints.

Easily Decorated—Bishopric Wall Board is surfaced with heavy sized cardboard, which takes Oil or Water Colors perfectly, and which forms an ideal surface for Wall Paper or Burlap. Artistic panelling adds to its attractiveness.

Fire-resisting—The Asphalt-Mastic in which the laths are imbedded is toughened by a patented process, and will not burn. Buildings have been saved because of this Wall Board.

Rat and Vermin Proof—The pests find it impossible to gnaw or bore through the tough, gummy Asphalt-Mastic.

Bishopric Sheathing is made of precisely the same materials as Bishopric Wall Board, but the

finished surface is not so smooth. It costs only one quarter as much to apply as lumber and building paper, and makes a better wall. Applied with the laths out, it binds cement or stucco as nothing else can. When weather boards are applied over it, the dead air space between the laths affords splendid insulation.

Write for Illustrated Booklet which explains fully the advantages of Bishopric Wall Board and Sheathing, and shows by photographs how to apply it and how it looks when put on the wall and ceilings.

Working plan for Bishopric Model Home—Send 6 cents to cover cost of mailing and we will send you Architectural plan for building a Model House. We will also send sample of Bishopric Wall Board and Bishopric Booklet. Write to-day.

Dealers—Our proposition for representatives in unoccupied territory is decidedly interesting. Write us.

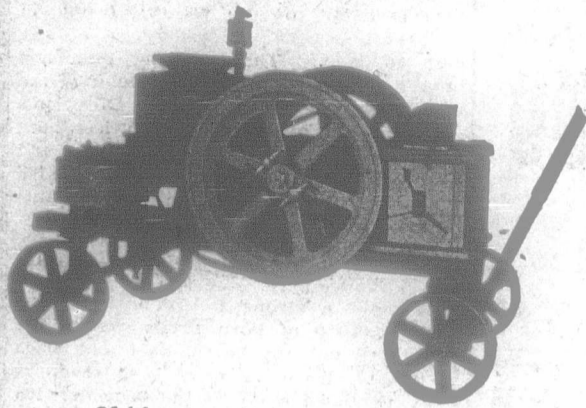
Bishopric Wall Board Co. Limited
Sparks Street, Ottawa, Ont.

(Coupon)
BISHOPRIC WALL BOARD CO. LIMITED
OTTAWA, ONT.

Please send me your Wall Board and Sheathing Book, and this big sample of Bishopric Wall Board.

Name.....
Post Office.....
L10

ONE OF THE PERKINS FAMILY



2½ h.-p. engine on trucks or skids.

Now is the time to buy a **PERKINS GASOLINE ENGINE or WINDMILL**

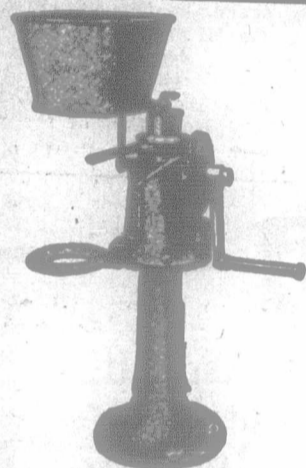
for pumping that well of yours during the hot dry days during the summer months.

This engine will pump your water, run your cream separator, churn, washing machine, cutting box and buzz saw, or any other work requiring light power.

Write us to-day for prices, etc.

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 Factory: Mishawaka, Ind. **LONDON, ONTARIO**
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Gasoline engines from 2½ h.-p. to 30 h.-p. Windmills, 54 different styles and sizes, Both wood and steel wheels.



Get the Separator NOW which will make your dairy more profitable this season. Make a **FREE** trial of the

PREMIER

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Write us for further particulars.

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GRAND TRUNK SYSTEM NEW SERVICE

BETWEEN
TORONTO—SARNIA—SAULT STE. MARIE
PORT ARTHUR—FORT WILLIAM—WINNIPEG
STEAMBOAT SPECIAL —Effective June 7th Westbound

Ly Toronto, G.T.R.	10.45 a.m.—Mon. Wed. Sat.
" Hamilton, "	11.53 a.m.— " " "
" London, "	2.18 p.m.— " " "
" Sarnia Wharf, Nor. Nav. Co.	4.15 p.m.— " " "
" S. S. Marie, Ont., Nor. Nav. Co.	11.30 a.m.—Thurs., Sun.—3.00 p.m. Tues.
Ar. Port Arthur, Nor. Nav. Co.	7.30 a.m.—Mon., Fri.
" Fort William, Nor. Nav. Co.	9.00 a.m.—Mon., Fri.—2.30 p.m. Wed.
" Winnipeg, G.T.P. Railway	7.45 a.m.—Tues., Thur., Sat.

Parlor-Cafe, Parlor Cars and First-class Coaches between Toronto and Sarnia Wharf. Standard Sleeping Cars (electric lights in lower and upper berths), Colonist Sleeping Cars (berths free), Dining Car and Coaches between Fort William and Winnipeg. Commencing June 16th, a through electric lighted Standard Sleeping Car will be operated between Fort William, Winnipeg, Saskatoon and Edmonton. This is the inauguration of Grand Trunk Lake and Rail Route Service between Eastern and Western Canada. A Special Train will run the reverse way—from Sarnia Wharf to Toronto, commencing June 8th, and each Tuesday, Friday and Sunday thereafter. Full particulars, Reservations on Steamers or Trains, may be obtained on application to Grand Trunk Agents, or write **C. E. HORNING, D.P.A.** Union Station, TORONTO, ONT.

SPRING CHICKENS—BROILERS

We are open for shipments of Live Spring Chickens and Broilers, and will pay highest market price according to quality. Write for quotations.
HENRY GATEHOUSE
 348-350 West Dorchester St. Montreal, Que

Please Mention this Paper.

The reputation of the pineapple has suffered because it has been eaten in too large quantities at a time, and the fibrous part has been swallowed with the juice. To obtain the full digestive value of the juice, one quadrant of a slice half an inch thick is ample at one meal. It must not be cooked, and should be just ripe. The preserved fruit has practically no digestive power.

Another use other than digestive is in cases of diphtheria, for the juice has a strong solvent action upon plastic exudation, such as the diphtheria membrane. When it is applied to it on a swab or spray, its time of contact is not enough to cause solution, but it is of material service in softening the sticky and stringy exudation so as to admit of its easy detachment. It also softens horny epidermis in the same way as, though more slowly than, salicylic acid. If a thin slice be kept in close contact with a corn for eight hours, it will be softened so as to be readily removed.—Selected.

Mrs. Newbride came hurriedly into her husband's study one morning. "Herbert, dear," she said, "this recipe for lemon pie says to sit on a hot stove and stir constantly." "Well, Alice," replied the doting husband, "if you do sit on a hot stove I think you will find that you will stir constantly."

"The Farmer's Advocate" Fashions.

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



DESIGN BY MAY MANTON.
 7333 Plain Blouse or Skirt Waist, 34 to 42 bust.
 7515 Five Gored Skirt, 22 to 32 waist.



DESIGN BY MAY MANTON
 7036 Semi-Princesse Gown, 34 to 44 bust.



DESIGN BY MAY MANTON
 7766 Russian Blouse Waist, 34 to 40 bust.
 7596 Five Gored Skirt, 22 to 32 waist.



DESIGN BY MAY MANTON.
7621 Combination Corset Cover and
Four Gored Petticoat for Misses and
Small Women, 14, 16 and 18 years.



DESIGN BY MAY MANTON.
7853 Bathing Suit,
34 to 44 bust.



DESIGN BY MAY MANTON.
7584 Child's Box Plaited Dress,
2 to 6 years.

TOO SOON.

A certain company promoter once built a castle on a mountain peak. As he showed the gray, medieval-looking pile to a friend, he said:

"I don't know what to call it. What name do you advise?"

"It looks like those Scotch castles in the Highlands," said the friend. "Why not call it Dunrobin?"

"Dunrobin? Dunrobin? Yes, that would be a good name," said the millionaire; "only, you see, I have no intention of retiring yet."

On the same day as the last issue went to press, announcement was made in the evening papers that the alleged discovery by Professor Reiser of a temple, etc., inside the Sphinx, was not true. The Professor, when interviewed, said he had made no investigations of the Sphinx, and had no intention of doing so. Whether the journalist who first fathered the story had read Miss Langlois' book, "In the Shadow of Pa-Menka," I cannot say, but as it has been out some years, it is quite possible that fiction was the original source of this "fact."—T. P.'s Weekly.

The Windrow.

The Japanese continue to protest against the California land bill. In the meantime, President Wilson and other prominent men, both in Japan and the United States, are discussing measures for solving the trouble.

"Sylvia Pankhurst will be known in history as the person who wouldn't open her mouth while in jail, and wouldn't shut it while at large."—Cleveland Plain-dealer.

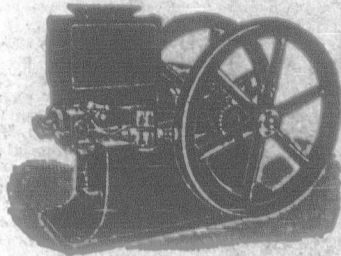
Chicago has established a "Morals Court," to hear all cases of social evil. Women probation officers and women physicians are connected with it, and will be called upon to do duty when women are on trial.

In Germany many horses are shod with shoes made of tarred rope. The object is to prevent slipping on streets covered with asphalt or paved blocks. In some of these shoes there is also a block of wood, into which stiff bristles have been driven. This is an additional preventive against slipping, and strengthens the shoe. They are light and comfortable for the horse, and deaden the sound of the hoof.—Otago Witness.

"Monarchs" Cost You Less for Power

The special carburetor turns your gasoline into the greatest amount of power possible. The low fuel cost surprises all our customers experienced in ordinary farm engines. The fuel saving alone pays the cost of the "Monarch" long before it is worn out. This is the one engine to get, if you want the benefit of farm power—1½ to 35 h.p.

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Sole Selling Agents in Eastern Ontario, Quebec and Maritime Provinces
THE FROST & WOOD COMPANY, LIMITED, Smith's Falls, Ont.
Montreal, Que., and St. John, N. B. 16

To Hog Raisers News of the Week.

CANADIAN.

H. R. H., Prince Albert, Frederick George, second son of the king, has been travelling quietly through Canada during the past fortnight.

"The Grange," the home of the late Goldwin Smith, bequeathed by him to the city of Toronto, was opened on June 5th, as the nucleus of an Art Gallery for Ontario. An extension will be built facing on St. Patrick street.

A monument in memory of the men killed at the battle of Stony Creek, was unveiled on June 6th.

Parliament at Ottawa was prorogued on June 6th, after a session of 197 days.

Leaders of both parties in the Dominion Parliament have declared that immediate war must be waged on the white-slave traffic. Ten thousand dollars is to be appropriated as a beginning, to cope with the evil.

BRITISH AND FOREIGN.

Winston Churchill, First Lord of the Admiralty of Great Britain, stated on June 5th that, owing to the rejection of the Naval Bill by the Canadian Senate, the construction of three warships provided for in this year's naval Budget, will be begun in England at once, instead of waiting until March next as was intended.

At the race for the Derby at Epsom, England, on June 4th, a militant suffragette, Miss E. Davidson, rushed out and attempted to stop King George's horse. She was injured so that she has died since. The jockey that rode the horse was thrown, and was also injured severely.

Four women in England, who have qualified in law, have been refused permission, on ground of their sex, to attend the preliminary examination to enable them to practice as solicitors. One of them, Miss Bebb, daughter of the Principal of St. David's College, Lampeter, took first-class honors in law at St. Hugh's College, Oxford. Legal action against the Law Society will be taken by the women.

Nurses' Training School.

We often receive questions from girls who wish to enter training as nurses in hospitals. Will those who are interested kindly see the advertisement of the Alexandra Hospital, Montreal, elsewhere in this issue.

Trade Topics.

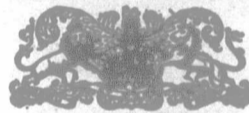
OF INTEREST TO HOUSEKEEPERS.
It will pay our readers to get samples of the Baldwin Four-in-One house-dress advertised on page 1079.

HARAB Digestive Tankage

To the hog raiser looking for a profitable food for his hogs we say use Harab Digestive Tankage. Guaranteed analysis shows 60% protein, 8% fat and 6% fibre. Of these protein is the most important. The protein develops muscle and lean meat on your hogs, and provides heat and energy to the body.

is successfully used by a large number of the large hog raisers and experimental farms in Canada. Hogs given this food seldom suffer from the diseases common to hogs, the Tankage fortifying the system. Write for our booklet giving prices, and including feeding tables.

THE HARRIS ABATTOIR
CO., LIMITED,
TORONTO



MAIL CONTRACT

SEALED TENDERS ADDRESSED TO the Postmaster-General, will be received at Ottawa until noon, on Friday, the 11th July, 1913, for the conveyance of His Majesty's Mails on a proposed contract for four years, three times per week each way, over Rural Mail Route No. 1, from Appin (Appin and Inadale), Ont., from the Postmaster-General's pleasure.

Printed notices containing further information as to conditions of proposed contract may be seen, and blank forms of Tender may be obtained, at the Post Offices of Appin, Inadale, and Glen Wilow, and at the office of the Post-office Inspector at London.

G. C. ANDERSON,
Superintendent.

Post Office Department,
Mail Service Branch,
Ottawa, May 29th, 1913.

Alexandra Hospital, Montreal—For Contagious Diseases. Applicants for Nurses' Training School. Probationers (of the age of 19 to 25 years) wanted for a period of one year; lectures given and certificates granted. Intimate arrangements exist with the Montreal General, Royal Victoria and Western Hospitals, and the Toronto General Hospital, Toronto, by which our nurses properly accredited are received at those hospitals under favorable conditions. The strictest references are required. For forms of application and particulars, apply to MISS GRACE M. FAIRLEY, Lady Superintendent.

EUROPE TWO SERVICES

REGULAR SERVICE by the "Laurentic" and "Megantic," largest liners from Canadian ports carrying passengers in all classes.

MODERATE RATE SERVICE by the "Touche" and "Canada" carrying One Class Cabin (III) and Third Class only. The best cabin accommodation on the ship at low rates.

The "Laurentic" and "Megantic" are the only Canadian liners carrying Orchestras.

Sailings every Tuesday
Ask the nearest Agent for Particulars.

WHITE STAR DOMINION LINE

Mending Basket.

Reply to A. L.

Editor Mending Basket:

One could scarcely read the letter of "A. L." without thinking that there are others besides the militant suffragettes who are looking for notoriety. She speaks of the woman-suffrage movement as being amusing, annoying, and pathetic, and I heartily agree with her as to the latter, for is it not pathetic in the extreme that when woman, long-suffering as she has always been, rises up to demand of man the right to vote, she is utterly ignored, and practically forced to such measures as those now employed by the militant suffragettes?

Will anyone deny that woman bears the heaviest burdens the world over? Does she not endure the pain and suffering of motherhood, and assume all the care of the child after it is born? Did any of you ever see a father take charge of an infant for a whole day? And how many cases do you know of where he would get up and take care of a restless baby part of the night while the poor, worn-out mother snatched a little rest? Yet, who owns that same child? By the laws of our country, who has the most authority over it, the father or mother?

It seems the main argument against woman suffrage is that women should stay at home and wield their "influence" there, hinting that they have power over their husbands even to the extent of influencing their vote, and what woman is there who does not know how very shallow that argument is? I believe that in the estimation of the majority of men, woman is either a plaything or a slave, and surely if she is one she is both; and just here there is a verse from the pen of that very discerning Scottish poet, Burns, which keeps coming to my mind.

"If I'm designed yon lordling's slave,
By nature's law designed,
Why was an independent wish
E'er planted in my mind?"

"A. L." states that our keener penetration might influence our husbands in voting, and says, almost in the same breath, that "It will squander valuable time to prepare ourselves to vote intelligently." Could anything be more contradictory?

Another argument often advanced is that women are not called upon to defend the nation in time of war. Of course, it has not been customary for them to do so, but still they give their sons for that same defence, and tell me, women, especially farmers' wives, would the physical exertion of marching with a gun on your shoulders, be much greater than the ceaseless, hard labor, which is the lot of so many, which your husband or father expects of you from day to day, and for which he may possibly grow to despise your faded beauty?

Women, from the foundation of the world, have stood shoulder to shoulder with men in the responsibilities of life.

The fight for "Votes for Women" is on to stay, and I for one will say: "God speed the day when women will have a say in the Governments of the world, not for the pleasure of voting, but to redress some wrongs from which woman-kind has always suffered; to suppress such terrible evils as the growing white-slave trade, and to secure for our women an equal footing by the side of man." It may be that in ages to come, the names of Mrs. Pankhurst and the rest will stand out as shining examples of devotion and heroism.

"MOTHER."

A "PATCH."

Editor Mending Basket:

Allow me to contribute a patch. I shall illustrate, then we may deduct the moral.

One day at dinner, John remarked that the pudding was good, as he passed his plate for a second helping. A young guest gave me such a surprised look that I wondered at it. After dinner she said, "Mrs. Miller, didn't it seem strange to hear Mr. Miller say such a queer thing?" "What?" I inquired. "Why, he said the pudding was good." "Well, what is queer about that? Wasn't the pudding all right?" "Yes, but at home, pa and the boys would have said it wasn't fit to eat. They never praise anything." And I remembered that while a guest at that home everyone seemed to snarl at the others.

Another time the threshing machine came a day before it was expected. Farmers' wives know what that means when no help is to be found, and perhaps two or three other machines are in the neighborhood. However, by carefully planning my "menu," I managed to prepare a fairly good meal, which the men seemed to enjoy. In the afternoon while I was washing dishes and wondering how I could ever get supper, John came in and told me that I had given them one of the most satisfactory dinners he had ever eaten.

Strange to say I felt rested, able to sing, "Count Your Blessings." (John's idea of a good dinner is beefsteak, potatoes, and salad.)

One day John came to the house quite perplexed about some important business. "Never mind," I said, "you always fall on your feet." He went out without paying any attention to what I said. In a few hours he came home from town and called out cheerily, "I fell on my feet, Jennie."

Some time after I overheard a neighbor saying that he would be dreadfully worried were he in John's place. "Yes," said John, "but Jennie says I always fall on my feet," and he did.

Now, in my crude way, I have tried to show how a few drops of the oil of praise and commendation lubricate the machinery of married life. Try it, husbands and wives. Not "taffy" or "gushing," but a few honest words do help so. This patch is big enough for a breadth in one of the new skirts, isn't it?

"JENNIE MILLER."

Kent Co., Ont.

Gossip.

RYANOUE AYRSHIRE SALE.

At the first annual sale of Ayrshires, from Ryanogue Farm, at Brewster, N. Y., on May 22nd, seventy-one head, of which a large proportion were bull calves, sold for a total of \$20,190, an average of \$284. The highest price obtained was \$1,700, paid by H. J. Chisholm, of New York, and \$1,500 was paid for Burnside Lucky Cavalier, by R. R. Ness, Howick, Que., who also secured Broomhill Flora 2nd, at \$1,500, and two others at \$500 and \$600.

Volume 35, of the Scottish Clydesdale Studbook, has been published, and a copy, by courtesy of the secretary, has been received at this office. This volume is one of the largest of the series, containing as it does, 1,223 pages, pedigree records of stallions numbering from 18869 to 17567, and mares from 30791 to 34134; also a list of members of the society, a list of the breeders and owners of the animals entered in the volume, and a list of the winners of the society's premiums in 1912. The illustrations are excellent photogravures of the stallion Scotland Yet, and the mare Harviestoun Baroness, Cawdor Cup winner in 1912.

A GREAT SALE OF JERSEYS.

At Linden Grove Farm, Coopersburg, Pennsylvania, on May 20th, T. S. Cooper & Sons sold at auction 130 head of Jerseys for \$58,840, an average of \$450, a number of young calves being included in the lot. The highest price obtained was \$2,050, for the eight-year-old cow, Raleigh's Beauty, taken by Lynnwood Farms, the runner-up being R. J. Fleming, Toronto, Ont., who secured the four-year-old cow, Noble's Grey Mabel, at \$550, and the five-year-old, La Fontaine's Campanile, at \$950. The cow Oxford's Hillside Pansy sold for \$1,800, to Elmenhof Farm, Lexington, Ky., and eight other females averaged \$1,034. Bulls were not in much demand, and \$500 and \$510 being the highest prices reached, and nine sold for an average of \$374.

BATH AND WEST SHOW.

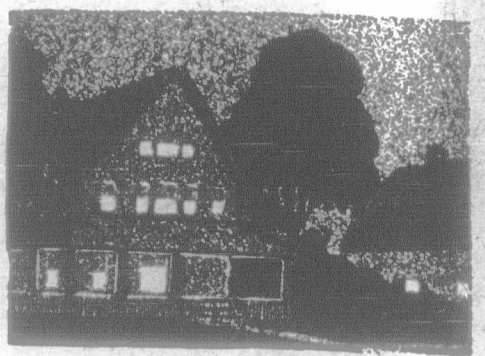
The annual Bath and West of England Live-stock Show of 1913, was held at Truro the last week in May. Short-horns made an excellent show. Two classes were provided for pedigree Dairy Sfforthorns. In the older class, C. R. W. Adeane led with a red cow of superior character, which gave 30½ lbs. of milk in the ring. In the red bull class, R. Stratton was first, a champion with Mischieff, a big, evenly-fleshed bull of fine quality. Lord Fitzharding won in the two-year-old class with Aldsworth Pride, a bull of much substance, with good quarters, and a level top. Lord Fitzharding also scored in the yearling class with Brave Marquis. W. J. Hoskin's roan two-year-old heifer, Cornish Maid, was first in her class and female champion of the breed.

The entry of Aberdeen-Angus was smaller than usual. The leading aged bull was Sir George Cooper's Banderol of Hursley, by Black for Ever, brought out in fine form, and afterwards awarded the male championship. The cup for the best bull in the show, any breed, went to G. Butters, for his Hereford bull, Sailor King. The cup for the best cow, any breed, went to the Devon cow, Torridge Belle, shown by L. H. Ashford, a typical specimen of the breed.

The Oxfordshire Annual Live-stock Show, which, as a rule, is the first of the English County spring shows, which was held in Bicester the third week in May this year, was in keeping with the reputation of the event. Short-horns were a fairly good display. Four of the nine aged bulls competing were white, and the first prize was awarded F. Miller's massive roan, Man o' War, carrying a good covering of flesh. Second place was taken by C. E. Gunther's Windmill Marquis. Bold Broadhooks, from the same herd, was third. In two-year-old bulls, Sir Richard-Cooper's Hoar Frost was given first place, and Earl Manver's Royal Sovereign was second.

The Edgecote Shorthorn Company won first and second for yearling bulls, with Edgecote Masterpiece and Edgecote Conqueror, and C. E. Gunther's Tongswood Juryman was third.

In the aged cow class, F. Miller's Augusta 125th was placed first, after a struggle with W. M. Scott's Gay Maid. First in three-year-olds was R. Cornelius Bankfields Belle, by Village Beau, second W. M. Cazalet's Clipper Keepsake, and C. E. Gunther's Olive Leaf and Tongswood Edith third and reserve. R. J. Balston's Bess of Bilsington, led in the two-year-old class, W. T. Garne & Son's year second with Romp's Gift, and third went to T. E. Watson's Beatrice 4th. In the yearling heifer class, Cazalet's Gypsy Countess 3rd, a Phingask-bred white, purchased at Perth sale in February, was a good leader, second being taken by F. B. Wilkinson's Scotch Mist, and third by Messrs. Garne's entry. In the Dairy Shorthorn cow class, R. Silcox & Son's had a good winner in Flyde Marwenna 2nd, described as a silky, melow-skinned cow of nice form and quality. In the ring she gave 32 lbs. of milk. C. R. W. Adeane had second prize for Babraham Countess Clara, a big-framed red, with a nicely-hung udder, and a milk certificate of 30½ lbs. The prize-winning three-year-old heifers had certificates of 22½, 23 and 25½ lbs., respectively. The male championship was awarded to Man o' War, and the female honor to Bankfields Belle.

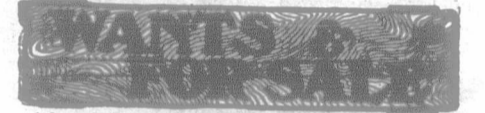


Light Your Farm With "Home-made" Electricity

You can now make your own electric light. We have perfected a system for generating and storing current on the safe, low voltage system. Costs very little to install and about 20c. per week to operate. So simple your boy can run it. Also pumps water under sufficient pressure to give running water throughout house and barn. Send for full description, special terms and recommendations from satisfied users. The lowest price system of its kind and class.

Send your name to

The Home Electric Light & Water Systems
Welland, Ontario



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 80 cents.

ALL kinds of farms. Fruit farms a specialty. W. B. Calder, Grimby, Ont.

AGENTS wanted in every township to sell the most practical washing machine on the market; a quick seller, and a good commission paid to live agents. Apply Dominion Distributing Company, Chatham, Ont.

AIM FOR VANCOUVER ISLAND—Canada's most favoured climate; suits middle-aged and elderly people well; good profits for ambitious men with small or large capital in business, professions, fruit growing, poultry, mixed farming, manufacturing, mining, fisheries, timber, railroads, new towns, endless opportunities. Write to-day for authentic information. Vancouver Island Development League, 1-29 Broughton St. Victoria, B.C.

HELPFUL literature for Bible students free on application. Secy. International Bible Students' Association, 59 Alloway Ave., Winnipeg.

FARM FOR SALE—150 acres in Lambton County, being west half of lot 21 and north-west quarter lot 20, Concession 11, Don. For prices and terms, apply John D. Wood, Langbank P.O., on the premises.

WANTED—Situation by Farmer's son just out from England, experience in all branches, machinery and fitting live stock for show, &c., wife good dairy woman, can give good references. State wages and terms. A. Speed, Orkney, Ont.

POULTRY AND EGGS

Condensed advertisements will be inserted under this heading at three cents per word each insertion. Each initial counts for one word, and figures for two words. Names and addresses are counted. Cash must always accompany the order for any advertisement under this heading. Parties having good pure-bred poultry and eggs for sale will find plenty of customers by using our advertising columns. No advertisements inserted for less than 50 cents.

SINGLE-COMB Brown Leghorns. The kind that lays, \$1.25 for fifteen. William Barnett & Sons, Living Springs, Ont.

S.-C. White Leghorns—Great laying strain; eggs from special matings, \$1 per 15; \$4 per 100. GEO. D. FLETCHER, ERIN, ONT. R. R. No

Cream Wanted

We guarantee highest Toronto prices, full weights and prompt returns. Our 15 years' experience ensures satisfaction. We furnish cream cans and pay express charges. Write:

Toronto Creamery Company, Limited
Toronto, Ontario

At an auction sale of Aberdeen-Angus cattle at Holbrook, Iowa, May 27th, fifty-seven head, the property of P. J. Donohoe and Wm. Cash, realized an average price of \$206. The top price for a female was \$465, for the seven-year-old cow, Ersvye, and the highest for a bull was \$555, for the thirteen-month-old Ballinera.

FOR FARMERS AND GARDENERS

The Latest Improved Specialties

Every Farmer and Gardener should use Eureka Tools and Implements. These tools have proved to be great labor and Money Savers. Our method of making these Specialties assures adaptability, strength and service at the minimum price for the best goods of their kind on the market.



Without wings and ladders it is an excellent Wagon Box, with them it is a perfect Hay, Stock, Wood, Corn or Fruit Rack. Can be instantly adjusted to five different working positions without the use of a single tool. Suitable for moving any kind of load. The material used in construction is of the very best being made from sound hardwood and tough malleable iron castings. Buy one which meets every requirement.

"EUREKA" GARDEN SEEDER
Will handle the most delicate seed without bruising or breaking and will sow evenly to the last seed. An excellent tool for sowing Sugar Beets and all kinds of Garden Seeds. Sold with or without the Cultivator Attachments.

"EUREKA" SANITARY CHURN
The only Sanitary Churn made. Barrel of finest stoneware, top of clear pressed glass, very easy to operate. Three sizes, No. 1, 2 and 3.

"EUREKA" ROOT CUTTERS
Will shred or slice from one to two bushels per minute. Tapering cylinder with ten carefully tempered steel knives. Strong and durable.

WRITE FOR CATALOGUE
Our latest catalogue describes our entire line. It shows our Cultivators, Seeders and Tools as they are and gives a full description of their construction in detail. Write for free copy.

THE EUREKA PLANTER COMPANY LIMITED
WOODSTOCK, Ontario. 21

TRADE MARK
Wilkinson
REGISTERED
**PNEUMATIC
ENSILAGE
AND STRAW CUTTERS**

Our Climax "A" mounted is the only successful combination machine of this capacity on the market. It will cut and deliver green corn into the highest silo, or dry straw or hay into the mow. 18" mouth, rolls raise 8 inches and set close to knives, making solid compact cutting surface. Requires less power than any other of same capacity. No lost power. Direct pneumatic delivery, no worm gears or special blower attachment. Knife wheel also carries the fans. No lodging on wheel arms, everything cut, wheel always in balance. Steel fan-case. Supplied with pipe enough to reach any silo, also pipe rock, tools, etc. Ask your dealer about them and write for catalog. We also make a "B" machine unmounted.

THE BATEMAN-WILKINSON CO. LIMITED.
418 Campbell Avenue, Toronto, Ontario.



15.95 AND UPWARD

AMERICAN SEPARATOR

THIS OFFER IS NO CATCH. It is a solid proposition to send, on trial, fully guaranteed, a new, well made, easy running separator for \$15.95. Skims hot or cold milk; making heavy or light cream. Designed especially for small dairies, hotels and private families. Different from this picture, which illustrates our large capacity machines. The bowl is a sanitary marvel, easily cleaned. Shipments made promptly from WINNIPEG, MAN., TORONTO, ONT., and ST. JOHN, N.B. Whether your dairy is large or small, write us and obtain our handsome free catalog. Address: **AMERICAN SEPARATOR CO.** Box 1200 BAINBRIDGE, N.Y.

PATENTS procured everywhere
EGERTON R. CASE
Registered Attorney, Dep. E. Temple Building, Toronto. Booklets on request, 20 yrs. experience

Questions and Answers.

Miscellaneous.

Girl Leaving Home.
1. Can a girl who makes nearly all her own living, be compelled to stay home until she is 18?
2. Can she leave home against her parents' wishes before she is 18?
3. Is a girl her own mistress at 18?
4. Can she be married when she is 18 against her parents' wishes?
ESSEX COUNTY SUBSCRIBER.

Ans.—1. Yes.
2. Not legally.
3. Generally speaking, she practically is.
4. Yes.

Municipality Flooding Farm.
1. Can the township turn water off road on a man's farm, and leave it five rods from the road to lie and soak away and damage his crop?
2. What steps should be taken to have the water run off?
3. Can he collect damages if the water is not run off, or the ditch continued across his place?
SUBSCRIBER.
Ontario.

Ans.—1. Not legally.
2. He should make complaint in writing to the council of the municipality, and warn them at the same time that unless the matter is attended to promptly and suitably, legal proceedings will be taken.
3. We think so.

Gossip.
Clydesdales for Canada were shipped from Glasgow May 17th, by Robert Ness, Howick, Que.; Jas. Hay, Lachute, Que.; G. G. Stewart, Howick, Que.; Arthur C. Hardy, Brockville, Ont., and A. Scarff, Cummings Bridge, Ottawa.

The death is announced of Lord Rothschild's famous Shire stallion, Blythwood Kingmaker. He was foaled in 1899, bred by Lord Blyth, was sired by Blythwood Conqueror, dam Blythwood Guelder Rose, a daughter of Prince Harold. At Lord Rothschild's Tring Park sale this year, five of his progeny averaged \$2,495. Among the more noted of his sons was Blackthorn Kingmaker, bought by Sir Arthur Nicholson, for \$8,750.

J. E. Arnold reports having sold to Edward Maxwell, Montreal, for Maxwellton Stock Farm, Ste. Ann de Bellevue, the following Percheron mares: Hazelthorn, Dorcas, Flory D. (the last two having beautiful foals at foot), and the stallion Koqueisis, imported from France, and winner of first place at Montreal Horse Show. To S. W. Faucett, Sault Ste. Marie, the Percheron stallion Rambler, and to James Beers, of Beersville, N. B., the filly Winnette.

THE "PRINCIPLE" INVOLVED.
Sir William Meredith, Chief Justice of Ontario, and Mr. I. F. Hellmuth, are mutual fathers-in-law—the lawyer's daughter having wedded the son of the knight. During a rather tedious argument on a case which Sir William was hearing, Mr. Hellmuth was proceeding to elaborate on a certain point of law which he thought had an important bearing on the issue.

But the Chief Justice thought otherwise. He was impatient. For a while he listened to the lawyer's argument, then he leaned back with an air of boredom, and interrupted with:—"Mr. Hellmuth, it seems to me that this is not relevant. What reason is there why I should be compelled to listen to all this?"

Mr. Hellmuth's mouth had just a suspicion of a smile around its corners as he answered:—"Reason, my Lord—why, \$8,000 per year."—Mail and Empire.

Parcels post presents some problems to the postman. A usually jolly individual wore a worried expression on his daily round recently, and reported a very tough time. His trouble was all caused through having to deliver a piece of liver and a hungry bull dog in the same mail. Dog and liver came very nearly being delivered as one parcel, or with the dog as wrapper of the liver.

EASTLAKE METALLIC SHINGLES FOR YOUR HOME ROOF

A Leaky Roof
is the despair of every householder. It costs money to repair and frequently causes extensive damage. You can avoid this by the use of "EASTLAKE" METALLIC SHINGLES. Absolutely water-tight—more durable than wood or slate and look better—last a life-time with no repairs. Write us to-day for free booklet.

THE METALLIC ROOFING CO. LIMITED
MANUFACTURERS—TORONTO & WINNIPEG

This Engine Runs on Coal Oil

Every farmer can afford an Ellis Coal Oil Engine. They give far more power from coal oil than other engines do from gasoline. They are safe, as well as cheap; no danger of explosion or fire. The strongest and simplest farm engine made; only three moving parts: nothing to get out of repair. Anyone can run it without experience. Thousands of satisfied customers use these engines to grind feed, fill silos, saw wood, pump, thresh, run cream separators, and do dozens of other jobs. Cheaper than horses or hired men. Fill up the tanks and start it running, and no further attention is necessary; it will run till you stop it.

FREE TRIAL FOR 30 DAYS. You don't have to take our word for it. We'll send an engine anywhere in Canada on Thirty Days' Free Trial. We furnish full instructions for testing on your work. If it does not suit you send it back at our expense. We pay freight and duty to get it to you and we'll pay to get it back if you don't want it. Absolutely guaranteed for 10 years. Write for free catalog and opinions of satisfied users. Special offer in new territory.

3 to 15 horse-power
We Pay Duty and Freight

Ellis Engine Co., 94 Mullett Street, DETROIT, MICH.

Here is the Engine They're Talking About

All sizes in portable, semi-portable and stationary.

To-day the sensation in the Canadian gasoline engine field is the success of the Renfrew Standard Engine. People started talking about the

Renfrew Standard

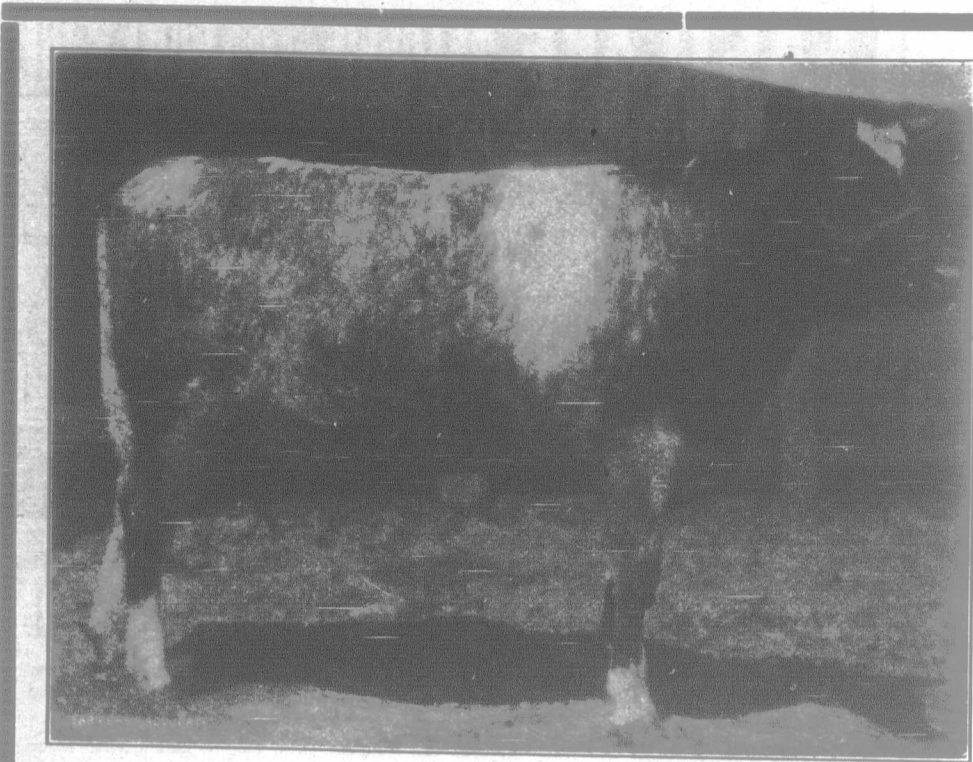
when they saw it at the big fairs last autumn. Here was an engine that started without cranking—that was so perfectly balanced it did not need to be anchored down—that had a governor of the flyball steam engine type—that had a remarkably simple carbureter—that had no pipes, fittings, cooling pumps or fans to freeze or get out of order. Was it any wonder that people talked?

It will set you talking, too, when you see it. You'll want one right away. That seems to be the case with everyone, judging by the way our sales are increasing by leaps and bounds.

Write for our engine bulletin and name of nearest agent.

The Renfrew Machinery Company, Limited
Head Office and Works: RENFREW, ONTARIO
Branches: Saskatoon, Sask.; Calgary, Alta.; Sussex, N. B.
AGENCIES EVERYWHERE IN CANADA.

Please Mention The Advocate



Miss Mayflower =103244=.

Great Dispersion Sale OF IMPORTED AND HOME-BRED REGISTERED **SHORTHORNS**

ON
Wednesday, June 25th, 1913

At **SPRING GROVE FARM, ILBERTON, ONTARIO**

This offering of thirty head comprises the entire Spring Grove herd of T. E. & H. C. Robson, Ilderton, Ont., and a choice selection from the Springhurst herd of Harry Smith, Exeter, Ont. Two very high-class bulls, including the herd header, are contained in the sale, all the rest being females of the highest order. Five cows have calves at foot by Imp. Commodore, and the remainder of those of breeding age are bred to the Cruickshank Victoria bull, Victorlan. Some of the noted families represented are: Butterflies, Clippers, Mayflowers, Miss Ramsdens, Orange Blossoms, Rosemarys, Rosewoods, Strathallans and others. This is an especially attractive offering, all the cattle being in good breeding condition, and many, when fitted, will be heard from at our large exhibitions. Some of the cows are heavy milkers.

Six months' credit will be given, and six per cent. per annum allowed for cash. Trains will be met at Ilderton the morning of the sale, which will begin at 1.30 p.m. Catalogues on application to

T. E. ROBSON, Manager, London, Ont.

EMPIRE CREAM SEPARATORS



EMPIRE Cream Separators have been used by three generations.

Judge a Separator by light, quiet running. That is always the most practical way. Did your father or grandfather use the EMPIRE? You can safely stick to family experience—safely follow father's and grandfather's example—and buy an EMPIRE.

The best low price separator is our **BALTIC Cream Separator** at \$25 to \$45

STA-RITE Gasoline Engines

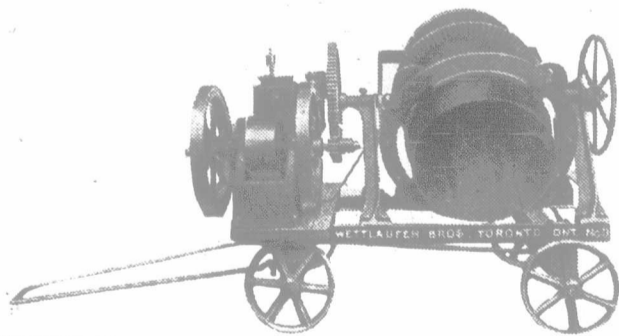
are called Sta-Rite because they do stay right—which is a very important point.

AGENTS WANTED for our machines in unoccupied territory. Agencies are going rapidly. Which machine do you need or want? Write for Catalog 125

THE EMPIRE CREAM SEPARATOR CO.
TORONTO (Limited) WINNIPEG

If this young woman should cut the string, the EMPIRE would start under the weight of its crank.

BUY A CONCRETE MIXER



And Save Labor Expense.

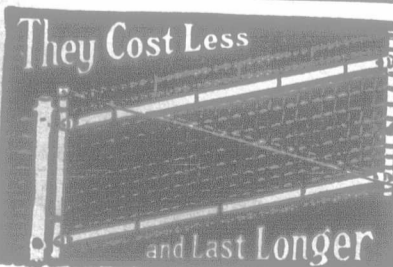
THE IMPROVED
WETTLAUFER POWER MIXER

will save you \$15 to \$20 a day on your job, and will reduce the cost of all cement work in the construction of your house, barn, silo and other work about your place.

Send for catalogue to Farm Dept. W 3, and we will tell you how.

WETTLAUFER BROS.,

178 Spadina Ave., TORONTO, ONT.



They Cost Less

and Last Longer

"Clay" Gates

STRONGEST and best farm gate made. 30,000 sold in 1912. Can't sag, bend or break. Can be raised as shown. Good for Winter and Summer. Send for illustrated price list.

The CANADIAN GATE CO. Ltd.
34 Morris St., GUELPH, Ont.

Questions and Answers. Miscellaneous.

Line-Fencing.

I am sending a chart of change of ownership of land and fences. The chart explains lay of land and present ownership of fences. Can B compel G to build half of line, G having half of side-line of 100 acres length? There was no agreement at any time as to fences. The lines are as they have been for years.

Ontario.

Ans.—You can obtain suitable relief in the premises by taking proceedings under The Line Fences Act, Revised Statutes of Ontario, 1897, Chap. 284, as amended by Statutes of 1908, Chap. 63; and it seems that the matter can hardly be disposed of definitely and satisfactorily otherwise.

Unsatisfactory Drainage.

Some years ago, before I bought the farm, the people living on this farm and adjoining farms, for the length of a block, signed an agreement to give their neighbor above me the outlet for his water, which was not the natural water-course, but merely took his water to oblige him. The ditch was dug, each man digging across his own farm. I have been here six years, and in that time the water has never followed the course where the ditch was dug on my farm, and the ditch filled in, the water cutting a new channel for itself across the center of field, and flooding down the same run on my neighbor. My neighbor's ditch is in another run about thirty rods farther south. I have asked him to take the water where it crosses into his place, and he refuses, on the grounds that his agreement was to take it where he now has his ditch. This is not in the petition.

1. Can I compel him to give me an outlet where the water is running now?
2. Am I supposed to take the water out of its natural course, because of a mistake which other people made before I got the farm? I would have a lot of digging to do, and also spoil my field.

3. Is my neighbor compelled to take my surface water, and to open ditches deep enough to do so?

4. Should I get the township engineer on, and would he have power to act in the matter?

5. In case that I cannot get an outlet from my neighbor, where the water now runs, can I compel the owners of the land where this water originates, to keep it back, they having a ditch about six feet deep, through a rise, to let the water over on us? **SUBSCRIBER.**

Ontario.
Ans.—We think that the whole matter is one to be attended to and disposed of by the engineer—under The Ditches and Water-courses Act (Ontario Statutes of 1912, Chap. 74).



Better Butter And Better Prices

These are the two big reasons why you should use Windsor Dairy Salt.

If you make your living out of the butter you sell, then anything that will make the butter better will make more money for you.

WINDSOR DAIRY SALT

has proved its quality and superiority in thousands of dairies and in hundreds of contests.

Successful creamery men have used and are still using Windsor Dairy Salt—because it gives them the best results always.

Are YOU using it?

71D

CHURCH BELLS CHIMES AND PEALS

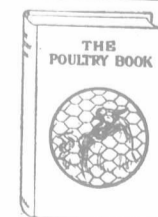
MEMORIAL BELLS A SPECIALTY

FULLY WARRANTED

MC SHANE BELL FOUNDRY CO.,

BALTIMORE, Md., U. S. A.

Established 1856



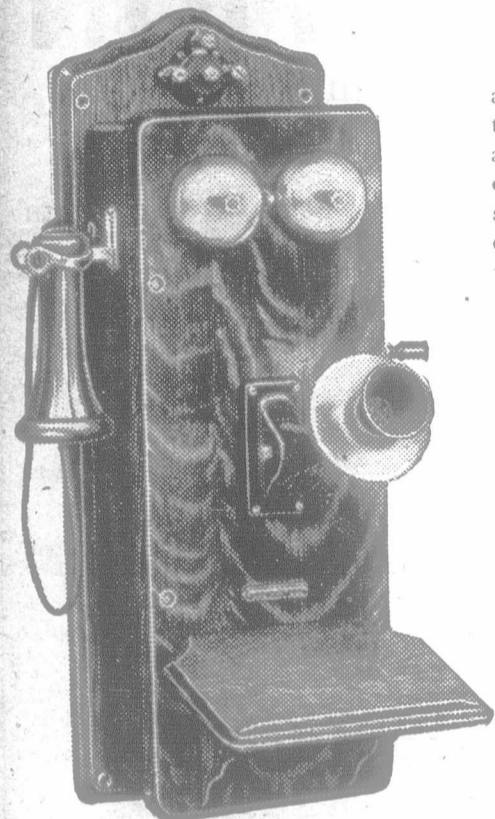
THE POULTRY BOOK

A thoroughly practical guide for Amateur, Fancier, Professional Breeder or General Farmer. It is the book you need, 325 illustrations and over 1,000 pages. A handsome volume bound in cloth, large 8vo. Price until recently, \$5.00, now offered for the first time at \$2.00 postpaid. Write for catalogue of books every farmer should have.

Meteor Stamp & Pub. Co.
94 TYNDALL AVE., TORONTO, CANADA

When writing mention Advocate

It's a Pleasure to Use These Telephones



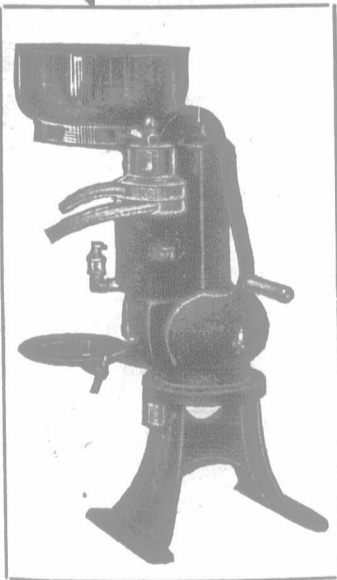
They are the clearest-talking and loudest ringing bridging telephones on the market. They are guaranteed to be superior in design, material and workmanship. They have several exclusive features that add to their efficiency. Made in wall phones, as illustrated, and desk or table styles. If you are operating a telephone line and not using our telephones and equipment, write for our Free Trial Offer. If there is no telephone line in your locality, write us and we will tell you how to organize an independent municipal or local company. Ask for our No. 3 Bulletin—containing the latest information about building telephone lines—Also No. 4, describing our magneto telephones, is free on request.

Send for a Copy.

Canadian Independent Telephone Co., Limited,
20 Duncan Street, Toronto

Save Your Energy Save Your Time and Save Money
By purchasing a large-capacity

SIMPLEX CREAM SEPARATOR



The **SIMPLEX** skims closer and faster than most other machines. You will realize what a saving of time this means to you in the busy season.

The ease of running, ease of cleaning, simplicity, self-balancing bowl, interchangeable spindle-point, low-down supply can, the general pleasing appearance and the perfect skimming of the **SIMPLEX** make it the favorite everywhere it goes.

Write us to-day for our free booklet No. 5 describing the improved **SIMPLEX** large capacity Cream Separators.

Tell us how many cows you milk, and we will give you estimates on what it will cost you to install the B. L. K. Mechanical Milker in your stables. Ask for booklet describing B. L. K. Milkers. Address:

D. DERBYSHIRE & CO., Brockville, Ontario
Or **G. A. GILLESPIE, Peterborough, Ont.**

We want agents in a few unrepresented districts.



Electric Steel Wheels with Wide-grooved Tires
Are the ideal wheel for farm and road. Built to fit any axle or skein, of any height, any width of tire and capacity.

WRITE FOR CATALOGUE AND PRICES.
ELECTRIC WHEEL CO., 8 Elm St., Quincy, Ill., U. S. A.
Or **NORMAN S. KNOX TORONTO, ONT.**
47 Wellington St. East

Gossip.

John A. Boag, of the firm of John A. Boag & Son, breeders and importers of Clydesdale and Hackney horses, Queen'sville, Ont., intends leaving for Scotland the last of this month for a shipment of Clydesdale stallions and fillies. At the present time, two good Clydesdale fillies are offered, one three years old, and the other a two-year-old. The three-year-old won in her class at Guelph last December. Both are choice, and will be sold right.

J. M. Gardhouse, Weston, Ont., writes that the demand for live stock of all kinds has been very good during the last few months, but no large prices have been realized. We have sold and shipped from Rosedale Farm during the last few months, 48 head of Shorthorn cattle, 10 Clydesdales and Shires, 1 Standard-bred, and 7 ponies, and a few Leicester sheep; also one carload of extra large geldings. These animals have been sold to every Province in the Dominion, and several have changed hands at a much larger figure than was paid for them. The last shipment, on May 30, was a carload of mixed stock for British Columbia, purchased by Inverholme Farm, Colony Farm, Alex. Davey, of Ladner, and N. G. Abbott, of Vancouver. Alex. Paterson purchased the imported bull, Lavender's Prince, one of the best-bred bulls in Canada. We have had a small importation of Shire horses of extra quality and breeding land recently which are doing well, and which will be heard from in the near future; also some ponies. We can supply intending purchasers with any line of stock, as we have a very promising lot of young stock of all lines coming along.

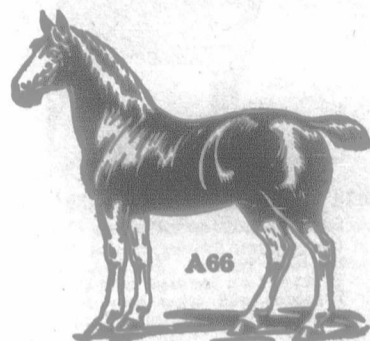
SPRING GROVE AND SPRINGHURST SALE.

Following last week's announcement of the dispersion sale of Shorthorns belonging to T. E. & H. C. Robson, Ilderton, a few more of the good things may be mentioned. Miss Mayflower =103244= is a roan yearling heifer, and one of the best show-yard propositions in the offering. She combines smoothness with size and depth of fleshing, and could scarcely be faulted. She is by the Rosewood bull, Rosewood Chief, whose sire and dam were both bred at Collynie. Don't fail to be in the running when this heifer is offered. Bell of the Morning, bred to Victorian, is a roan Miss Ramsden, and one of the good matrons of the herd. She is a regular breeder of choice stock, is got by the Gold Drop bull, Springhurst, and is the dam of Evening Belle, which topped the Bredt sale in December, at \$550. Her dam was by Joy of Morning, and grandam by the great Scottish Archer. Belmar Miss Ramsden 4th is a thick, dark-red yearling heifer, smooth and deep-fleshed, straight in her lines, with an abundance of Shorthorn character. She will be heard from at the shows, and must be seen to be appreciated. She is by the good-breeding bull, Mountaineer, a son of the renowned Uppermill Omega. Primrose 2nd (imp.) =48528= is a big roan, full of substance, and a good milker. She is thought by some to be the best of the breeding cows in the herd, and is dam of the heifer selected by the Government for the Monteith Farm, as the foundation of a herd of dual-purpose Shorthorns. She is bred to Victorian. Rosemary 21th is a big, growthy, red yearling heifer, with every indication of having milking qualities in plenty. She is by Rosewood Chief, and is one of the best buys in the herd. Robina 3rd (imp.) is a Rosebud, bred by Wm. Duthie. She is a big, useful cow, and cost a long price as a yearling. She is sired by Merry Morning, which sold at the Uppermill sale in 1901 for \$2,250. This cow is the kind upon which to found a herd. Athelstane Rosewood 3rd =94466= is a four-year-old, which has produced a grand bull calf already mentioned, is sired by the Butterfly bull, Roan Chief, he by the noted sire, Villager, bred at Collynie. Her dam is the Duthie-bred Trout Creek Rosewood, by Beaufort Victor. See the advertisement, and get a catalogue from T. E. Robson, London, Ontario.

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You Can Do It While He Works.

We want to show you that there isn't any affection that causes lameness in horses that can't be cured, no matter of how long standing. We want to send you our instructive book, "Horse Sense" No. 3.



It describes all. And with the book we want to send you an expert's diagnosis of your horse's lameness. All this is absolutely free. Simply mark the spot where swelling or lameness occurs on picture of horse, clip out and send to us telling how it affects the gait, how long animal has been lame and its age.

We absolutely guarantee Mack's \$1,000 Spavin Remedy to cure Spavin, Bone or Bog Spavin, Curb, Splint, Ringbone, Thoroughpin, Sprung Knee, Shoe Boli, Wind Puff, Weak, Sprained and Ruptured Tendons, Sweeney, Shoulder or Hip Lameness and every form of lameness affecting the horse. We have deposited One Thousand Dollars in the bank to back up our guarantee. Cures while he works. No scars, no blemish, no loss of hair.

Your druggist will furnish you with Mack's \$1,000 Spavin Remedy. If he hasn't it in stock, write us.

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THICK, SWOLLEN GLANDS
that make a horse Wheeze, Roar, have Thick Wind or Choke-down, can be reduced with

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also any Bunch or Swelling. No blister, no hair gone, and horse kept at work. Concentrated—only a few drops required at an application. \$2 per bottle delivered.

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MESSRS. HICKMAN & SCRUBY
Court Lodge, Eglerton, Kent, England
Exporters of Pedigree live stock

of all descriptions. Illustrated catalogues and highest references on application. We are doing a very large business in draft horses of all breeds, but especially Percherons, and we are offering unsurpassed values. All over the world there is a shortage of wool and mutton, sheep will go higher, and we solicit orders for show flocks. Our prices on big bunches of field sheep will surprise you.

DR. BELL'S Veterinary Medical Wonder. 10,000 \$1.00 bottles FREE to horsemen who will give The Wonder a fair trial. Guaranteed to cure Inflammation, Colic, Coughs, Colds, Distemper, Fevers, etc. Agents wanted. DR. BELL, V.S., Kingston, Ont.

Warranted to Give Satisfaction.
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Gaustic Balsam



Has Imitators But No Competitors.
A Safe, Speedy and Positive Cure for
 Curb, Splint, Sweeney, Capped Hock,
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 Puffs, and all lameness from Spavin,
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 Cures all skin diseases or Parasites,
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 Humors from Horses or Cattle.
 As a Human Remedy for Rheumatism,
 Sprains, Sore Throats, etc., it is invaluable.
 Every bottle of Gaustic Balsam sold is
 warranted to give satisfaction. Price \$1.50
 per bottle. Sold by druggists, or sent by ex-
 press, charges paid, with full directions for
 its use. Send for descriptive circulars,
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THE ONE BEST FOOD
MOLASSINE
MEAL



when fed regularly to
 horses enables them to do
 better work — also pre-
 vents colic and worms. Mix
 with oats and feed three
 times a day—reducing the
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 MOLASSINE used. Get the
 genuine made in England.

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 OF CANADA, Limited
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NOTICE TO HORSE IMPORTERS
GERALD POWELL,
 Commission Agent and Interpreter,
 Nogent Le Retrou, France,
 Will meet importers at any port in France or
 Belgium and assist them to buy Percherons, Bel-
 gians, French Coach horses. All information about
 shipping, banking and pedigrees. Many years'
 experience; best references. Correspondence sol-
 icited. P.S. Nogent is in the heart of the Perche
 horse district.

Notice to Importers
C. CHABOUDEZ & SON
 205 rue La Fayette, PARIS, FRANCE.
 If you want to buy Percheron Horses and
 Mares, I will save you time and money and all
 trouble with papers and shipment. Will meet
 importers at any landing port. I am acquainted
 with all breeders and farmers. 30 years experi-
 ence. Best reference. Correspondence solicited.

Clydesdales, Standard-breds, and Short-
horns. Our herd numbers
 about 40 head. Headed by the great stock bull,
 Trout Creek Wonder. Ten bulls for sale, from 6 to
 14 months old; all good colors and good individuals.
DUNCAN BROWN & SONS, Walnut Grove
 Stock Farm, Iona, Ont.

Questions and Answers.
Veterinary.

Lumps on Legs.
 Foal is now four weeks old. When
 born, there was a slight raise or lump
 on the inside of each fore leg. The
 lumps are hard, and look like splints.
 They are hard, about an inch long, and
 half the thickness of a lead pencil. Are
 they splints? H. B.

Ans.—Splints are a diseased condition
 of the bone, and are not congenital,
 hence these are not splints, as they were
 present at birth. From the symptoms
 given, we are of the opinion that the
 apparent growths are simply the splint
 bones that are probably a little more
 prominent than usual. It will be wise
 not to interfere with them, and it is
 probable that in a few months things
 will appear normal. If these really are
 congenital abnormalities of the legs,
 treatment will do no good. V.

Miscellaneous.

Heifer Lame.
 Will you tell me what is the matter
 with my heifer's foot? It has swollen
 about twice the usual size, just around
 the top of the hoof. After it had been
 like this a week it burst, and it dis-
 charged a little matter between the
 hoofs. She is in pasture. C. W. S.

Ans.—This is probably foul in feet, or it
 may have been due in the first place to
 injury. See article on "Sore Feet in
 Cattle," in our issue of May 29th, page
 988.

Heifer Coughs.
 I have a heifer coming three in the
 fall, which freshened nearly two months
 since. About a month ago she con-
 tracted pneumonia. She recovered fairly
 quickly, eats well, and seems all right
 except for a persistent cough. She had
 a slight cough quite a while before she
 took pneumonia.

1. Would the disease be likely to leave
 this cough, or do you think there is
 danger of tuberculosis?
 2. Would this attack render her more
 liable to another next winter?
 3. If this cough is not tubercular, is
 her milk fit to use?
 4. Is there anything that will help her
 to get rid of it? It seems much better
 when she is out-doors. P. M. L.
- Ans.—1. There is a possibility that the
 disease from which she suffered is re-
 sponsible for the cough, but would make
 sure by having her tested for tubercu-
 losis.
2. It might.
 3. It should be.
 4. If she is in good condition, and on
 good pasture, the warm weather should
 bring a cessation of the cough, if it is
 simply a sequel to pneumonia.

GEORGE WASHINGTON.
 The incumbent of an old church in
 Wales asked a party of American tour-
 ists to visit his parochial school. After
 a recitation, he invited them to question
 the scholars, and one of the party ac-
 cepted the invitation.
 "Little boy," said he to a rosy-faced
 lad, "can you tell me who George Wash-
 ington was?"
 "Iss, sur," was the ready reply. "'E
 was a 'Merican general."
 "Quite right. And can you tell me
 what George Washington was remarkable
 for?"
 "Iss, sur. 'E was remarkable 'cos 'e
 was a 'Merican and told the trewth."

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Brandon, Manitoba
July 15th to 25th, 1913
\$50,000 Prize List \$20,000 in Speed Events

REDUCED RATES ON ALL RAILROADS
FARMERS! MANUFACTURERS!
 We have the most liberal pre-
 mium list offered in Canada. Re-
 fund of 50% of freight on live
 stock and poultry without restric-
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 shown.
 Transfer track delivers all live
 stock right to Exhibition Barns.
 A premium won at Brandon
 will be worth having. Send for
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 Brandon now has the most beautiful exhibition grounds in Canada, covering 106
 acres. We have spent \$150,000 on new buildings for the Dominion Exhibition. In
 visiting Brandon you come to the most beautiful city in the West. Ample provision has
 been made for the accommodation of the record crowds that will attend. Municipally-
 owned street car system right to the grounds.

SOME OF THE ATTRACTIONS
 Grand fireworks display, picturing "The Naval Battle
 in the North Sea," a stupendous spectacle 200 feet long,
 portrayed in brilliant colored fires. A vivid presentment
 of modern naval warfare. Beautifully illuminated
 grounds, with spacious promenades. Music by the best bands in Western Canada.
 High-class attractions from Europe and America's leading amusement centres. Bobker
 Ben Ali's Whirlwind Arabs, 12 people. The famous Rex Comedy Circus, Modelsky's
 Russian Troupe of 8 people, The Barkers, Fire Divers, Performing Elephants, Dar-
 ing Aviation Flights by Monoplane twice a day, and other events.
 The Midway with 18 new attractions and the best of the old. High-class, clean
 entertainment by the great Patterson Shows.
TRAVELLERS' DAY, MONDAY, JULY 21st.
THE EXHIBITION THAT DOES CANADA CREDIT
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 Stallions and fillies. I have now the biggest selection in Canada, and a few toppers in
 stallions. High-class breeding and high-class quality—and low prices.
G. A. BRODIE, NEWMARKET P.O.

Mount Victoria Clydes & Hackneys
 When in want
 of a high-class
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 ion or filly, or something that has won and can win again in Hackney stallions or fillies,
 visit our barns at Hudson Heights, Que. T. B. MACAULAY, Proprietor
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CLYDESDALES, PONIES, BULLS Imported 3 year old Clyde fillies
 2 mares 4 years old, in foal. 3
 ponies broken to ride and drive, safe and quiet for women and children. Bulls consist of 4, from
 12 to 15 months old. All this stock is for sale at reasonable prices. Myrtle C. P. R. and G. T. R.
 38 miles East of Toronto.
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 (Blairgowrie Farm)

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 A few choice young stallions always on hand and for sale. Frequent importations
 maintain a high standard. Prices and terms to suit.
BARBER BROS., Gatineau Pt., Que., near Ottawa.

CHOICE CLYDESDALE STALLIONS AND MARES
 Both imported and Canadian bred always on hand at **SMITH & RICHARDSON,**
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Clydesdales, Imported Stallions and Fillies. Our record
 prize-winning Stallions and Fillies. Our record
 one or more winners in every class. We have new prize-winning Stallions and Fillies
 with breeding and quality unsurpassed—All are for sale.
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CLYDESDALES Imported and Canadian bred of large size, good colours,
 and the best of pedigrees always on hand. Pure-bred
 Jersey cattle of the choicest breeding, and Rhode Island Red Poultry of an excellent egg-
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OUR Stallion Policies, covering against loss by **Death through**
Accident or Disease, are more liberal and afford more
 protection to owners than any issued by
 Competing Company. They contain no vexatious
 clauses, having been drafted to cover the **special**
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 the horse no matter where he might be and
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 Do not **take any chances** by insuring with others, **insure with us;**
 The insurance premium represents only a small
 proportion of the service fees earned. Better
 risk the **loss of the premium** than the
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 without insurance.
Better have and not need than need
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 Write for particulars and address of nearest agent.
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Fight the Flies With Tanglefoot

Over ten million families find Tanglefoot the greatest aid. Every season 300,000,000 sheets of Tanglefoot go forth to fight flies. Think of the tremendous power for comfort and health this mighty army yields.

The First Fly Calls For Tanglefoot

Don't let the first fly escape. For one fly killed now may stop countless armies later. Put a sheet of Tanglefoot wherever you see a fly. Every sheet you use now will save you untold annoyance later.

Poisons Are Risky

Every summer fatalities are reported from their use. In several states the sale of poison is forbidden except by registered pharmacists. The poison does not kill the germ on the fly. Poisoned flies drop into your food, into baby's milk, are ground to dust in the carpet. Fly traps, too, are unsanitary and disgusting to care for.

Tanglefoot Is Non-Poisonous

It can be used safely where there are children. And it is a double protection. For, besides killing the fly, it seals it over with a varnish that also destroys the germ.

During 30 years nothing has been found to equal Tanglefoot. Each sheet can kill 1,000 flies.

Get the Original Fly Paper



The original Tanglefoot always bears this trademark. It contains one-third more sticky compound, hence lasts longer than the no-name kinds sold merely as fly-paper, or sticky fly-paper. Ask your grocer or druggist for Tanglefoot for this season's war on flies.

Made Only by THE O. & W. THUM CO., Grand Rapids, Mich.
A little gasoline will quickly remove Tanglefoot from clothes or furniture.

Questions and Answers. Miscellaneous.

Lump Jaw.

Please let me know the remedy required for the cure of lump jaw (not loose in the skin), but on the bone of the jaw.

Ans.—When the bone is affected and enlarged, you cannot remove the lump, but you can arrest the disease with iodide-of-potassium treatment as frequently advised in these columns. Give it three times daily in dram doses, gradually increasing the dose by about ten grains, until the appetite and desire for water fail, tears run from the eyes, and water from the mouth. When any of these symptoms appear, cease giving the drug. Repeat in six weeks if necessary. The dose prescribed is for a full-grown animal of medium size.

Obstruction in Teats.

Had a valuable Ayrshire heifer, calved about three weeks ago. Her udder was very much caked, but she milked fairly easy. As the caking disappeared, little lumps came in three of her teats, and now she milks hard in the three teats, giving a very small stream, making it almost impossible to milk her. Give cause of trouble, and suggest treatment. Would putting calves on her help the trouble?

Ans.—If the milk is stringy, give her a purgative of 1½ lbs. Epsom salts, and follow up with a teaspoonful of saltpetre in a pint of water as a drench daily, or in her feed for a week. Bathe the udder twice daily with hot water and vinegar, and rub it afterwards with goose grease and spirits of turpentine. Do this in case any trace of garget still remains. It is more than likely the lumps will continue to grow in the teats and may in time obstruct them completely. They are likely a sequel to garget in this case. A teat siphon might relieve the trouble somewhat, but it is not likely that a cure would be effected unless you got your veterinarian to perform an operation, which is not always successful. Milk the cow this summer, and if the teats show any worse toward the end of the milking period, and she is not particularly valuable as a breeder, prepare her for the butcher's block. Letting the calf suck might help. It is worth a trial, but we are doubtful whether any good results would follow.

A Bad Weed.

Enclosed find a species of weed found growing in field. Give name of same, and state whether it is a bad weed, or hard to get rid of.

Ans.—The weed enclosed is penny cress, more commonly called stinkweed. It has been introduced from Europe, and is now found in every Province in the Dominion. It is an annual, and winter annual, having white flowers, and seeds are borne in flat pods. It is a very bad weed on the prairie. Hand-pulling and burning is probably the best way to stamp it out where it has just gained a foothold in small quantities. Of course, where the weed it widespread, this is not practicable, and some method of getting the seeds to germinate, and afterwards working the land to kill the young plants, must be resorted to. Cultivate the land thoroughly each time a fresh growth of weeds develops. Great care must be exercised not to plow down any full-sized pods, even though they may be green, as in a dry climate such seeds will ripen beneath the soil. If there is a heavy growth of the weed on land to be summer-fallowed, mow it down and rake the weed up and burn it. Harrowing the growing crop will kill the seedlings of this weed, but must be done early, when the crop is just coming through, and again when it has reached the height of three inches, and in badly affected fields, again, when the crop is five inches high. It is also good practice where this weed is troublesome to cultivate, disk, or plow lightly, the stubble immediately after harvest. This starts the seeds. The following spring, disk harrow or cultivate these plants down, and plow and harrow at once. This land may be sown late to green feed. Lose no time in ridding the soil of this pest.

You can't beat this Combination

LOUDEN JUNIOR CARRIER

DOUBLE HARPOON FORK

Because the CARRIER

—has proven itself by many years of testing and by thousands of farmers to be the one perfect carrier. It is simply and strongly constructed of malleable iron, firmly braced where strength is most needed. Its mechanism is perfect. Has large swivel, positive lock and wide flaring mouth.

Sold at a price within reach of everyone.

and the FORK

—when used with this carrier cuts down time and labour in handling hay. You can't beat this Louden Harpoon Fork. Material and construction insure strength as well as ease of operation. It locks both open and shut. Has concave points and is designed to carry a large load. Here is a combination outfit that is well worth while. Ask the Louden dealer in your town to show you.

Send for our New Catalogue

If you are building a new barn get free barn plans from our Expert Barn Architect. Write

The LOUDEN MACHINERY CO.
Dept. 81 - GUELPH, Ont.

BOG SPAVIN

Once the lameness and remove the bump without scarring the horse—have the feet looking just as it did before the lameness came.

Fleming's Spavin Cure (Liquid) is a special remedy for soft and semi-solid swellings—Bog Spavin, Thoroughpin, Splint, Ours, Carpal Lock, etc. It is neither a liniment nor a simple blister, but a remedy unlike any other—doesn't irritate and can't be imitated. 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 ailments, and gives you the information you need to have before ordering or buying any kind of a remedy. Mailed free if you write.

FLEMING BROS., Chemists, 75 Church Street, Toronto, Ont.

SHORTHORNS!

Bulls of useful age all sold. Would appreciate your enquiry for females. Catalogue and list of young animals.

M. Cargill & Son, Cargill, Ont.

Oakland—50 Shorthorns

Present offering. Red Baron—81845—. He is a fine massive bull, of a capital milking strain, 2-year-old, our own breeding and all right. Also one good red two-year-old and one sixteen months. All of the Dual-purpose strain and can be bought worth the price. Write, or better still, come and see them. John Elder & Son, Hensall, Ont.

Spring Valley Shorthorns

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

KYLE BROS. - RR. No. 1, Drumbo, Ont.

Woodholme Shorthorns

I have for sale a number of choice young bulls from 8 to 14 months old (pure Scotch); also a number of heifers, 1 to 2 years old, of this level type, and richest breeding. G. M. FOSTER, North Claremont, Ont.

SHORTHORN Bulls and Heifers—choice lot, and heifers in calf. Former sire Joy of Morning (Imp.)—3270—and Betachie (Imp.)—6096—. Present stock bull, Royal Bruce (Imp.)—55038—(80909). GEO. D. FLETCHER, R. R. No. 2, Erin, Ont.

Shorthorns and Swine—Have some choice young bulls for sale, also cows and heifers of show material, some with calves at foot. Also choice Yorkshire and Berkshire sows. ISRAEL GOFF - Elmira, Ontario

SHORTHORNS—Six choice young bulls fit for service, at reasonable prices, from good milking strain. ROBERT NICHOLL & SONS Hagersville - Ontario

SHORTHORNS

One high class imported 13-months bull calf; one junior yearling show bull; one promising 11-months bull calf; one 14-months farmer's bull. Some bargains in heifers and young cows, including a few imported heifers.

MITCHELL BROS., Burlington, Ont. Farm ¼ mile from Burlington Junction

SHORTHORNS AND CLYDESDALES

5 bulls from 8 to 15 months—3 roans and 2 reds. Females of all ages. 11 imported mares—4 with foals by their side, 5 three-year-olds, and 2 two-year-olds; all of the choicest breeding. Catalogue of Clydesdales mailed on application.

BELL 'PHONE. BURLINGTON JCT. STA. W. G. Pettit & Sons, Freeman, Ont.

I STILL HAVE FOUR YOUNG BULLS FOR SALE AND MORE COMING-ON

Several heifers that are bred right and that will make great cows; some of them in calf now to my great breeding sire, Superb Sultana—75413—perhaps the greatest son of the great Whitehall Sultan—55049—that was imported by me and used so long in Mr. Harding's herd. I sell nothing but high-class cattle, but the price is within the reach of all. A few Clydesdales, Shropshires and Cotswolds always on offer. Local and Long Distance Telephone.

ROBERT MILLER, STOUFFVILLE, ONT.

5 Shorthorn Bulls 5—We have for sale at moderate prices 5 Scotch Shorthorn bulls, including one of our herd bulls. Also a number of high-class heifers and heifer calves.

A. J. HOWDEN & CO., COLUMBUS, ONT. Long-distance 'phone Myrtle G. T. R. & C. P. R.

SHORTHORNS—Records show that cattle bought from the Salem herd won numerous ribbons the past season; we have others. Several young bulls are priced reasonably.

ELORA, G.T.R. and C.P.R. J. A. WATT, SALEM, ONT.

Springhurst Shorthorns

Four of the first-prize Shorthorns at the late Guelph Show, including the champion and grand champion fat heifer, were all sired by bulls of my breeding. I have now for sale ten young herd headers of this champion-producing breeding. HARRY SMITH, HAY P. O., ONT. Exeter Station. Long-distance Telephone.

My present offering consists of 5 YOUNG BULLS fit for service, 10 females, cows in calf and heifers, 1 show yearling Clyde filly and 1 filly foal good enough to show any place. Prices very moderate. Claremont Station. C. P. R. JOHN MILLER, Brougham, Ont. Pickering Station, G. T. R.

Have for sale at present TWO GOOD STRONG BULLS

14 to 17 months old from good milking cows; nicely bred; also cows and heifers at reasonable prices. Write or call on: H. J. DAVIS, Woodstock, Ont. Long distance 'phone.

BEST RESULTS ARE OBTAINED FROM ADVOCATE ADVERTISEMENTS.



IDEAL GREEN FEED SILOS
ARE VERY DURABLE

Only Canadian Spruce lumber especially selected for our own use is employed. This is saturated with a solution which prevents rot and decay and reduces the tendency of the staves to swell or shrink and adds two to three times to the life of the Silo.

Each Silo hooped with heavy round iron hoops every 30 inches apart. Only malleable iron lugs are used.

We want you to have our Ideal Green Feed Silo Book
If you are a cow owner a postal card request will bring you the book free of charge.

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Headed by Prince Aggie Mechthilde. For sale at present: Choice bull calves, from Record of Merit dams with records up to 20-lbs. butter in 7 days. All sired by our own herd bull. Prices reasonable.

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Evergreen Stock Farm 4 bulls, 12 mos. old, from officially backed ancestors, running from 18 1/2 lbs. at 3 yrs. to 22 1-3 lbs. as matured cows, and on sire's side from 24 6-10 to 29 lbs. of butter in 7 days. Write, phone or come to F. E. Pettit, Burgessville, Ont.

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Minster Farm offers swine of both sexes and bull calves from R.O.P. cows with records up to 14,752-lbs. milk 1 year. All records made under ordinary conditions. For extended pedigrees write: **RICHARD HONEY & SONS, Brickley, Ontario**

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I am over-stocked, and will sell a lot of young cows and heifers, winners and bred from winners; officially backed and right good ones. Also Tamworths of all ages.

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For Sale—Jersey cows and heifers and bulls for exportation. All pedigree and Herd-book stock. For further particulars apply to **A. T. SPRINGATE, Breeder and Exporter, Gorey, Jersey, Europe.**

Questions and Answers.
Miscellaneous.

Weed in Alfalfa.

I am sending a plant found in my alfalfa field. Is it a species of alfalfa?
J. C. B.

Ans.—The specimen arrived in rather poor condition, but it is clearly not a species of alfalfa. It is likely rocket, a weed quite common in some samples of European alfalfa.

Pasture for Calves.

Having plowed the ground in the orchard, I would like to sow something suitable for calf pasture that would be ready for use in a few months. As I am a constant reader of "The Farmer's Advocate," kindly let me know the kind of seed, when to sow, and how thick to sow?
C. A. M.

Ans.—At this date, probably you could not do better than sow oats, or a mixture of oats and peas. Prof. Zavitz's annual pasture mixture would also be good, and the clover would come on in the fall. Sow 51 lbs. of oats, 30 lbs. of Early Amber sugar cane, and 7 lbs. of red clover per acre. It comes on fast, and should be ready for pasture in six weeks.

Protection from Lightning.

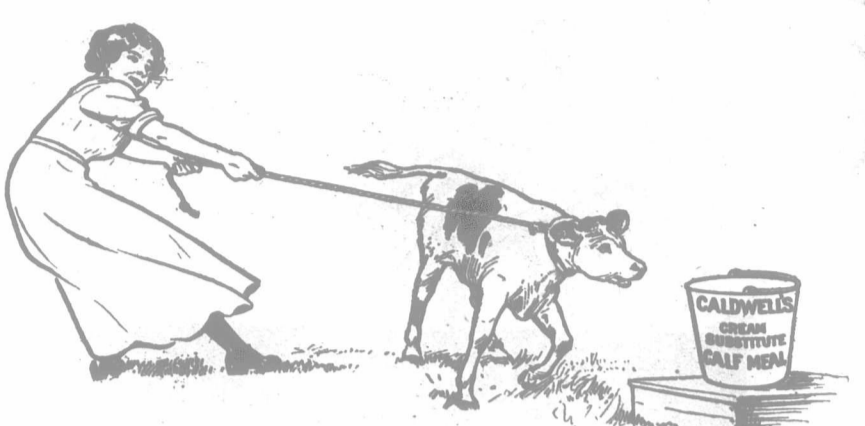
I intend to put four zinc ventilators on my barn, 3 1/2 feet in height. How would it do to put a copper wire along top of ventilators, and down each end of barn into damp ground? Would it do to put wire through steel fasteners on top of ventilator, or should they be made of copper? Would this make a good protection against lightning?
L. S.

Ans.—Almost any kind of metallic connection between a roof and the earth, furnishes a measure of protection from lightning. We would, however, recommend having wire laid along the ridge, and in contact with each ventilator, as it passes it, rather than the plan you suggest. Would also advise a cable of galvanized-iron wire instead of a single copper wire as conductor. In proportion to cost, iron is a more efficient and safer lightning conductor than copper. Fasteners should be of the same metal as the rod itself.
T. B.

Trouble with Rented Farm.

I have rented a stocked farm on a lease of three years. In the said lease, it is stated that I am paying rent for 10 cows, and that all stock is to be left as taken. The rent I am paying is \$275 per annum, which I consider rather high. The owner told me that all cows would freshen very early. The first instalment of the rent comes due September 1st. Now, when I came in possession of the farm I did not find 10 cows as stated, but 6 cows and 4 heifers coming two years old. I have been here now three months, and up to last week I have only had two cows milking but now I have four cows and two of the heifers, and will start the factory next week with this number, which will only bring me a small milk check. The landlord died the first day we came here, and now the farm is owned and managed by his widow (when I said managed, I mean in the way of paying taxes, etc.). Can I compel her to reduce my rent, or put me on fresh milkers; or, failing to do either, could I leave four heifers when my time is up?
A FARMER WHO WANTS JUSTICE.

Ans.—There seems to have been no stated time mentioned in the lease at which the cows were to freshen. Are all the heifers with calf, and due to drop calves this summer? If so, they could be called cows without much mistake. If all the cows and heifers produce calves in seasonable time, it is scarcely likely that you could get the rent reduced, or other cows substituted. We see no great objection to leaving in-calf heifers when your time is up, in the place of the four two-year-olds taken over when the place was rented, provided the landlord is satisfied they are as good as those leased. These matters you should be able to adjust between yourselves without trouble. If the lease says the same cattle must be returned as taken over, of course, it must be lived up to.



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Herd headed by Count Hengerveld Fayne De Kol, by Pietertje Hengerveld's Count De Kol out of Grace Fayne 2nd. He has 12 daughters already in the Record of Merit, and many more to follow. Junior sire,—Dutchland Colantha Sir Mona, by Colantha Johanna Lad out of Mona Pauline de Kol (27.18 butter) the dam of one daughter over 30-lbs. and one over 27-lbs, also the dam of the World's champion junior three-year-old for milk production. A few bull calves for sale.

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Herd bulls: Prince Hengerveld Pietje 8230 (50582). Sire, Pietje 22nd Woodcrest Lad, out of Pietje 22nd, 31.00 lbs. butter 7 days; greatest imported cow, and one of the greatest young sires of the herd, having already sired a 35-lb. 4-year-old daughter. Dam, Princess Hengerveld De Kol, 33.62 lbs. butter 7 days, highest record daughter of Hengerveld De Kol, with 116 tested daughters. King Pontiac Artis Canada 10042 (72294). Sire, King of the Pontiacs, greatest living sire of the herd, and sired by the greatest sire of the breed, Pontiac Korndyke. Dam, Pontiac Artis, daughter of Hengerveld De Kol. Record, 31.8 lbs. butter 7 days, 128 lbs. 30 days, 1,076 lbs. 365 days. Young bulls from these two great sires for sale, from cows with records up to 29 lbs. Write us, or better come and see them. Visitors always welcome. Address all correspondence to:

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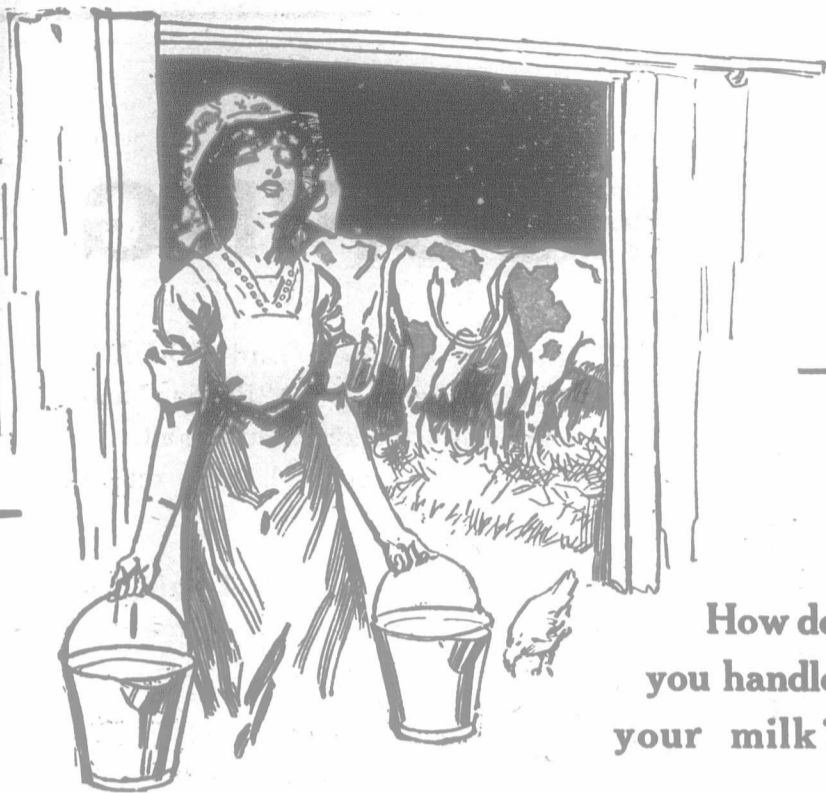
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Of course, we always have lots of pigs, all ages.



Holsteins One six year old cow due this month also fine 2 and 3-years heifers, bred; also a few Yorkshire pigs ready to wean.
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BRAMPTON JERSEYS The spring trade is on; we are doing the largest business we ever did, chiefly with our old customers; young bulls and heifers from sires with tested daughters.
Several imported cows and bulls for sale. Canada's Greatest Jersey Herd.
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ARE you getting every cent, per quart, out of your daily milking? It's all a matter of method. When you know you are disposing of your dairy products in the most profitable way—only then can you take the interest in your dairy that will make it a complete success. Make a comparison by actual figures of your present dairy earnings and what they would be with a

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This is easy to do. There is a Sharples agent near you who can quickly bring the facts down to a basis of dollars and cents. Have a talk with him.

He will demonstrate the Sharples to you—the unequaled skimming power of its wonderful tubular bowl—the bowl that has only 3 simple parts, which naturally makes the washing and cleaning a very simple matter.

To buy a Sharples is not an expense. You simply apply your money to a most profitable investment so that you make it over and over again, year after year.

And the Sharples name is your bond—as it has been for hundreds of thousands of farmers and dairymen for 32 years. Write for our Separator literature. And if you do not know our nearest agent, mention the fact in your request.

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L.-D. Phone.

HECTOR GORDON, Howick, Que.

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GLENHURST AYRSHIRES ESTABLISHED OVER 50 YEARS AGO, and ever since kept up to a high standard. We can supply females of all ages and young bulls, the result of a lifetime's intelligent breeding; 45 head to select from. Let me know your wants. JAMES BENNING, WILLIAMSTOWN P. O. Summerstown Sta., Clongarry

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Questions and Answers. Miscellaneous.

Dehorning Cow in Milk

Will it hurt a cow in milk to dehorn her, or what would be the best time to do this work? SUBSCRIBER.

Ans.—Temporarily, perhaps, to a slight extent, but many cows are dehorned in that condition, and if the work is done properly, the risk is very little.

Lice and Gapes.

Send to T. J. Cook, a subscriber to your paper, a remedy for lice and gapes.

Ans.—1. As you couple the mention of lice and gapes, we presume you have reference to poultry lice, for which A. G. Gilbert has recommended the following method of treatment. Corrosive sublimate, 4 ounces; common salt, 4 ounces. Dissolve in two to four quarts water. When completely dissolved, dilute to 25 gallons. With this, carefully spray every crevice, nook and corner of the house. As the solution is highly poisonous, care must be exercised in handling it. Follow by whitewashing the premises. Before returning the fowls to the poultry house, see that they are free from vermin. Dust fresh insect powder about the heads, on the backs and shanks, and under the wings. Repeat this in ten days.

2. For gapes, separate the affected birds from the well ones. Place them in a room having a clean, dry floor, disinfected every few days with a five-per cent. solution of crude carbolic acid. Burn, or deeply bury the bodies of dead birds. Disinfect the drinking vessels, and wash with clean water. Remedial treatment of the birds already affected is rather tedious. One quite commonly advised is to make a loop with a horse hair, introduce into the fowl's throat, and withdraw in spiral form with the idea of pulling out the gape worms. Several applications are likely to be needed. Others recommend dipping a feather in turpentine and inserting this, which will cause the chickens to sneeze and cough up the worms. A small portion of camphor in the drinking water is also recommended. Some poultry-keepers place the affected birds in a comparatively tight box or barrel, cover the top with cheesecloth or loose cotton, and dust lime through. It is claimed that the chickens breathe the air which is filled with fine lime, and this causes dislodgment of the worms.

Black-Quarter--Sowing Buckwheat.

A had a year-old heifer out on grass, and found her dead, from what cause I know not. Some say it was black quarter, and some say not. She had no marks or disfigurement whatever, with the exception of a slight swelling of the udder. We did not open udder for fear of poison, but the dogs had torn her in other places, and the meat looked as natural as could be, and the blood also.

1. I would like to know what black quarter is, its symptoms, and cause. Is it very contagious? Will it work on anything over a year old, or does age make any difference? Will the disease stay on land? What preventive measures might be taken? Is vaccination of any benefit? Will the flesh become black where affected, or will the whole carcass become black?

2. What is the best way to sow buckwheat, broadcast or drilled in every spout, or every other spout?

L. E. E.

Ans.—1. From the meagre description given, we are not prepared to say what ailed the heifer. Black quarter is caused by a micro-organism, taken into the system on grass or other food grown on low-lying lands. It causes lameness and swelling of the limb or limbs affected, soon followed by death. Prevention consists in keeping young cattle off infected pasture, or inoculating with anti-blackleg serum, which, with instructions and the necessary instruments, may be obtained from manufacturing chemists, or from the Department of Agriculture, Ottawa. It is seldom an animal over two years of age is attacked. It is not contagious. The affected limbs show dark in color in post-mortem examination.

2. Buckwheat does well sown broadcast.

Healthy Cows All The Year Round!

A natural food that strengthens and builds up is far better than any kind of tonic or medicine for animals, as well as for men. Scientists have proved that this new food increases the value of any kind of feed, when mixed with it.

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helps make more milk, and keeps your cows in good condition. It is also a good fattener for beef cattle.

For Horses—Buckeye Feeding Molasses is relished by horses. It keeps their stomachs in perfect condition, aids digestion, and besides saving feed, prevents kidney diseases, colds, etc.

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I have..... head of cattle.....

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

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Lincolndale, New York.

Ayrshires

Last chance. No females for sale, but still have a few bulls, sired by Woodroffe Comrade whose first heifer in milk gave 11,392 lbs. milk, 480 lbs. butterfat in year; prices right. H. C. HAMILL, Box Grove, Ont. Locust Hill, G.P.R. Markham, G.T.R. and L.D. Phone.

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Any one who keeps stock of any kind can make very good use of a can of Zenoleum, the great promoter of animal health now so largely used by stock owners everywhere. It is an excellent sheep dip. It destroys lice, mites, and all external parasites, and speedily removes stomach and intestinal worms from all animals. It is one of the best preventives of hog cholera known. It is not a hog-cholera cure, we do not know of a hog-cholera cure, but as a positive disinfectant it is a good thing to use to keep down all sorts of contagion, as it destroys disease germs and gives the animals healthy quarters. It stops the spread of roup in chickens. It cures calf cholera, and is a fine thing to heal up wounds and sores, being absolutely non-poisonous whether used internally or externally. Most dealers sell Zenoleum. Ask yours for it. Ask the Zenner Disinfectant Company, 312 Sandwich St., Windsor, Ontario, for a free copy of their sixty-four page Veterinary Adviser.

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Take a glass half-full of water and place a dime in it. Cover the glass with a plate. With one hand on the glass, and the other holding the plate firmly in place, turn the glass upside down quickly so that no water will escape. With the glass in this position, you will see what apparently are two dimes—one at the bottom a little larger than a dime really is, and another the actual size of a dime just above.



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Questions and Answers. Miscellaneous.

Colic.

My mare, when turned out to grass, is troubled with colic. Last summer she had quite a number of attacks. She has been troubled already this spring, and only out three or four days. Is there anything I can feed her regularly to prevent this. She has just foaled.

W. G. R.

Ans.—The attacks appear to be due to indigestion. Great care should be exercised when changing the feed of the mare, especially when turning her on grass. At first, allow her out only a short time, and gradually increase. The feeding of a tablespoonful of ginger every night in the feed tends to ward off attacks by keeping the digestive apparatus in tone. When she has an attack, give her 4 drams fluid extract of belladonna, and 1½ ounces each of laudanum and sweet spirits of nitre, in a pint of cold water as a drench. Never allow her to drink too much very cold water.

Commencing With Sheep.

1. What size of stable would I have to build for forty sheep?
2. What would be best, to build two-ply lumber with paper between, or single-ply, with strips nailed on cracks?
3. Would the latter way be warm enough for an Ontario winter?
4. What way would be best to build a flat roof or a square-pitch roof, so as to have room for feed on top to keep warm?
5. Would it be too cold to leave the door open all winter, so sheep can go in and out, as I don't intend to feed more than once a day?
6. Would it be a good plan to hang some kind of a curtain in the door to keep the draft out, and allow sheep to pass under it?
7. Describe a good feed rack to feed sheep.
8. What is a good remedy to kill lice on calves without taking the hair off?

A. T.

Ans.—1. For a flock of forty breeding ewes, and providing also for the handling of the increase from them, a pen 30 by 40 or perhaps 50 feet, would not be too large. It is well to allow plenty of room, and in building, provide for a larger flock. Some sheep barns are built to keep sheep on two floors, and these do not require to cover so much ground.

2. It is not necessary to build an elaborate pen. Good results may be obtained from one thickness of lumber, and the cracks battened.

3. Yes. Sheep do not require a warm pen. In fact, they are better in a cool one, and warmth is required only during the lambing season, and if the lambs come strong, and the shepherd is on hand to see that they get nourishment, it is surprising how much cold they will stand.

4. The pitch roof, or a hip roof, would likely be best, not from the viewpoint of warmth alone, but also as a place to store feed.

5. Sheep do much better when the door is left open to allow them free access to an open yard. They will stay outside a good deal of the time. Of course, on very stormy days, if the wind is driving the snow in through the opening, the door should be closed.

6. This might be done to advantage in some cases, but if the door is placed on the sheltered side of the building, is not necessary.

7. Racks should be set in the center of the pen, so that the sheep may feed from each side. It is a good plan to build an ordinary plank trough for the bottom, and this can be utilized for grain, and the hayrack is simply a slatted one, the slats being far enough apart to allow the sheep to put their heads through. Some place the slats perpendicular, others diagonally, wider at the top, and still others diagonally, and slightly wider at the bottom. These latter racks are usually hinged, and must be opened to put in feed, and are devised to keep dirt and hayseeds from rattling out and into the wool of the sheep. Barring this objection, the others are good, and in general use.

8. Mix dry cement and insect powder (pyrethrum), and sift it into the hair on the back of the animals. Insect powders advertised in this paper are also effective.

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THEN write us a post card TO-DAY. Simply-write the word "Roofing" and your name and address—that's all.

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We'll show you why Galt Steel Shingles make the best and most satisfactory roof for your barn—your stable—or your home.

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13

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Yorkshires Choice December sows and boars; also fine lot of April pigs from large litters and good mothers. Price \$10. up, registered, f.o.b. Satisfaction guaranteed.
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Cloverdale Berkshires—Present offering: Sows bred and others ready to breed; also younger stock of both sexes. Prices reasonable.
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Duroc Jersey Swine AND JERSEY CATTLE
Grand stock, either sex, constantly for sale. Price reasonable. MAC CAMPBELL & SONS, Northwood, Ont.

NEWCASTLE TAMWORTHS I am now offering young sows, bred, and young boars of breeding age, chuck full of imp. blood and show ring quality; I think the best lot I ever bred. Also younger ones of both sexes.
A. A. Colwill, Newcastle, Ont., L.D. Phone



MAIL CONTRACT

SEALED TENDERS ADDRESSED TO the Postmaster-General, will be received at Ottawa until noon, on Friday, the 20th June, 1913, for the conveyance of His Majesty's Mails on a proposed Contract for four years, six times per week, over Rural Mail Route "D," from Park Hill (Mt. Carmel way), Ontario to commence at the pleasure of the Postmaster-General.

Printed notices containing further information as to conditions of proposed Contract may be seen, and blank forms of Tender may be obtained, at the Post Offices of Corbett, Lieury, Moray, Mount Carmel, Park Hill, and at the Office of the Post-office Inspector at London.
G. C. ANDERSON,
Superintendent.

Post Office Department,
Mail Service Branch,
Ottawa, 7th May, 1913.



MAIL CONTRACT

SEALED TENDERS ADDRESSED TO the Postmaster-General, will be received at Ottawa until noon, on Friday, the 27th June, 1913, for the conveyance of His Majesty's Mails on a proposed Contract for four years, six times per week, over Rural Mail Route from Gad's Hill Station (West) (Rostock Way), Ont., from the Postmaster-General's pleasure.

Printed notices containing further information as to conditions of proposed Contract may be seen, and blank forms of Tender may be obtained, at the Post Offices of Rostock and Khuryville, Gad's Hill, Gad's Hill Station, and at the Office of the Post-office Inspector at London.

G. C. ANDERSON,
Superintendent.

Post Office Department,
Mail Service Branch,
Ottawa, May 14th, 1913.



MAIL CONTRACT

SEALED TENDERS ADDRESSED TO the Postmaster-General, will be received at Ottawa until noon, on Friday, the 27th June, 1913, for the conveyance of His Majesty's Mails on a proposed Contract for four years, three times per week, each way, between Brinkman's Corners and Tobermory, from the Postmaster-General's pleasure.

Printed notices containing further information as to conditions of proposed Contract may be seen, and blank forms of Tender may be obtained, at the Post Offices of Tobermory, Brinkman's Corners, McVicar, and at the Office of the Post-office Inspector at London.

G. C. ANDERSON,
Superintendent.

Post Office Department,
Mail Service Branch,
Ottawa, 13th May, 1913.



MAIL CONTRACT

SEALED TENDERS ADDRESSED TO the Postmaster-General, will be received at Ottawa until noon, on Friday, the 4th July, 1913, for the conveyance of His Majesty's Mails on a proposed contract for four years, six times per week, over Rural Mail Route from Mitchell special (North) (South Perth), Ont., from the Postmaster-General's pleasure.

Printed notices containing further information as to conditions of proposed contract may be seen, and blank forms of Tender may be obtained, at the Post Office of Mitchell, and at the office of the Post-office Inspector at London.

G. C. ANDERSON,
Superintendent.

Post Office Department,
Mail Service Branch,
Ottawa, May 17th, 1913.



Young? Yes—the oldest Ford is just ten years young—this month. And its youngest brother is the choice of the lot—a better car than those we built not long ago and sold at nearly twice its price. Big production makes the Ford price low.

More than 275,000 Fords now in service—convincing evidence of their wonderful merit. Runabout, \$675; Touring Car, \$750; Town Car, \$1,000—f.o.b. Walkerville with all equipment. Get interesting "Ford Times"—from Dept. G., Walkerville factory. Ford Motor Company of Canada, Limited.

The Anthony Wire Fence

The Perfect Tie



See That Knot

ANTHONY WIRE FENCE is the cheapest on the market if you value quality and workmanship.

ANTHONY WIRE FENCE is made from all No. 9 hard steel wire thoroughly galvanized.

ANTHONY WIRE FENCE has the stay wires tied to the line wires with the strongest, neatest and most compact lock on any wire fence made.

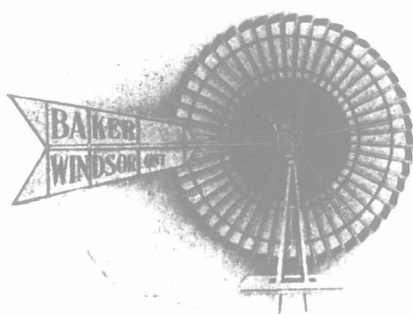
ANTHONY WIRE FENCE is so constructed that it will not bend down at the top nor roll up at the bottom; but stands up straight when erected.

Buy it and try it, and be satisfied.

LIVE AGENTS WANTED IN ALL UNOCCUPIED TERRITORY

The Anthony Wire Fence Co. of Canada, Limited
Walkerville, Ontario.

Solves the Water Problem



The BAKER WIND ENGINE is the perfect home waterworks, running water where and when you want it. There is only one expense to windmill-buying, and that's the first cost, if you buy a

"BAKER" GALVANIZED IRON WIND ENGINE.

It needs no paint or repairs, can't crack, shrink, swell or blow over. Once set up it will practically cost you nothing.

The towers are made of galvanized iron, have heavy flat braces instead of wire or rods, as used on other towers; bolts and nuts are thoroughly galvanized.

Furthermore, all parts are made exact, and when assembled the tower and windmill need no tinkering or adjusting.

Get your copy of our free booklet, No. 20.

THE HELLER-ALLER COMPANY, Windsor, Ont.

"STOP! HERE'S A DYER FENCE!"

Do you want a strong, durable fence, one that holds the strongest animal and lasts for years? Dyer has it, guaranteed. 17c. per rod up, freight paid. Lawn fence 7 1/2c. Cut this ad. out and mail to me. Dept. C. Toronto. Please send me your June special fence and gate offer. I want to save dollars and I want the best but this does not obligate me to buy

Name and Address _____
Dyer says "A 1c Postal to me now may mean many a \$5 saving to you"



MAIL CONTRACT

SEALED TENDERS ADDRESSED TO the Postmaster-General, will be received at Ottawa until noon, on Friday, the 4th July, 1913, for the conveyance of His Majesty's Mails on a proposed contract for four years, six times per week, over Rural Mail Route No. 1, from Embro (Brooksdale Way), Ont., from the 1st October next.

Printed notices containing further information as to conditions of proposed contract may be seen, and blank forms of Tender may be obtained, at the Post Offices of Embro, Youngsville, Brooksdale, and at the office of the Post-office Inspector at London.

G. C. ANDERSON,
Superintendent.

Post Office Department,
Mail Service Branch,
Ottawa, May 21st, 1913.

GRAND TRUNK RAILWAY SYSTEM

Homeseekers' Excursions

To Manitoba, Saskatchewan, Alberta.

Each Tuesday until October 28, inclusive
WINNIPEG AND RETURN\$35.00
EDMONTON AND RETURN.....\$43.00
Proportionate low rates to other points. Return limit two months.

Through Pullman Tourist Sleeping cars are operated to Winnipeg without change via Chicago and St. Paul, leaving Toronto 11.00 p.m. on above dates.

Tickets are also on sale via Sarnia and Northern Navigation Company.

Full particulars and reservations from Grand Trunk Agents, or write C. E. Horning, D.P.A., Union Station, Toronto, Ont.

The Call of the North

Do you know of the many advantages that New Ontario, with its millions of fertile acres, offers to the prospective settler? Do you know that these rich agricultural lands, obtainable free, and at a nominal cost, are already producing grain and vegetables second to none in the world?

For literature descriptive of this great territory, and for information as to terms, homestead regulations, settlers' rates, etc., write to

H. A. MACDONELL

Director of Colonization
Parliament Bldg. TORONTO, ONT.

Cunard Line

Canadian Service

Immigration Department

Special Interest to FARMERS' CLUBS

We secure "Help" for Farmers from the country districts of the British Isles. Requisitions must be filled up. Copies sent on application. Average time to get you "Help" about 6 weeks: No fee charged. Only regular fare on Ocean and Rail to pay. You need not be without "Help" this Summer or Fall if you send requirement early. Write for further particulars.

Cunard Steamship Company LIMITED

114 King Street W, Toronto.

Farmers, Own Your Own Threshing Outfit for the Sake of Your Farm

HERE is something new in Ontario—a farm threshing machine at about the cost of a self binder. This machine is just suited to a small farm. It will pay you to get it. There are hundreds of New England and New York farmers who would never think of allowing a community machine on their place. They use machines like this.

Supposing you owned such a machine as this. The first benefit is: You are absolutely independent of the community outfit, and have no tolls to pay for threshing. In a year or two your tolls will amount to the whole cost of this machine anyhow. In every community there are men who have grown rich off these tolls paid with your money and the money

The third benefit is that you control your threshing. Suppose this machine does (which it will not) pass wheat out with the straw. You can instantly stop and fix it. And you can fix it right. With a threshing outfit at your place for a day, there is no stopping for such a loss. They whizz your barley and wheat and oats right through, as fast as they can feed it. The lost grain doubles the actual cost of threshing tolls.

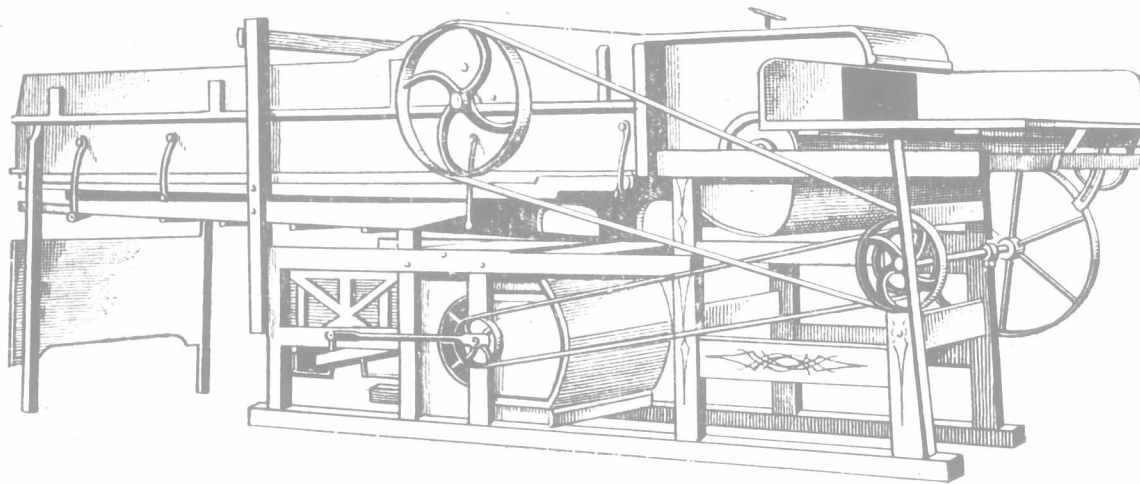
The private machine we illustrate keeps your farm free from weeds. The township outfits distribute wild oats from a tenant farm five miles away to yours. You know what a "clean up" is on one of these community threshing outfits. Sieves are crammed with wild oats. Somebody takes a broom on them for about 4

If you have a threshing outfit you can do nearly anything desirable, and thresh at any time, as you need straw or grain.

It is well known that when you sell your grain as "beef," you get nearly double price for your crop, and retain fertilizer for your land as well.

For the "mixed" farmer, this threshing outfit from the Page Wire Fence Co., is always "on the job." You can divide your threshing over the winter months exactly as you need straw, for roughage or bedding. This straw will be dry, clean, and in perfect condition.

For the "grain" farmer, this outfit permits threshing at any time whatever, with the harvest field hands as operatives. This means either the high early market prices for new wheat or other advantages. You can realize on your crop without delay.



How to Go About Getting a Farm Threshing Machine from us

Write us a letter, telling the size of your farm, and whether you have a farm engine or a horse-power outfit. Tell us what you farm—whether you specialize in stock feeding or are a straight grain farmer.

We will tell you the size machine you need, what it will cost, how many hands are needed, what the threshing will be in duration for your size of farm. We will give you all information.

This offer will not appear again. Write us NOW on this proposition.

Get in a position of independence as regards your harvesting. Adopt the custom of your farmer friends south of Lake Ontario. It has paid them, and will pay you, too.

of your neighbors. And that money was earned easier by them than by you.

You get a second benefit from this machine, bought from the Page Wire Fence Co. This benefit is that you can thresh when you like. Supposing you have a wheat yield in a rainy year. The wheat runs heavily to straw. Your neighbors are in the same fix. The one or two threshing outfits travelling your township speed up their machines to the limit, on account of the heavy straw. This fast threshing loses your wheat. This is a very big proportionate loss on your profit. It is exactly the same as paying taxes on an acre or two, plowing, harrowing, seeding, rolling, cutting on that acre—and then throwing it away.

seconds per sieve. A "clean up" is a joke—but it is a costly joke for your farm. A 25% stand of weeds in your crop means working 100 acres and paying taxes on 100 acres and hauling crop off 100 acres to get returns on only 75 acres of actual harvest.

Get one of these private threshing outfits this year. It will have paid for itself in a year or two. You will be independent. You can really eradicate weeds from your farm, because new weeds will not be brought to your farm. Your farm crops may increase by as much as one-quarter, and your yearly cash profits will tend to increase by as much as one-half by cutting out present wastes, hasty threshing, and tolls.

THE PAGE WIRE FENCE COMPANY, LIMITED
Walkerville, Ontario