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# THE FARMER'S ADVOCATE

AND HOME MAGAZINE

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SUCCEED

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

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Vol. XLIV.

LONDON, ONTARIO, MARCH 11, 1909.

No. 859

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**SPRINGDALE BEAUTY**, a fine early.  
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**YOU** can surely avoid a shaking separator by getting a Sharples Tubular. Sharples Separators are entirely different from all others. They have light bowls, hung below a single frictionless ball bearing. Being hung naturally, with their weight below the bearing, Sharples bowls can not and do not tip sidewise, shake or vibrate.

**SHARPLES** bowls run as smoothly after 20 years use as when new. Tubular bowls weigh just about half as much as common "bucket bowls," yet wear many times as long.

**SHARPLES** separators are the only kind with suspended bowls fed through the bottom—the only kind that do not get the "shakes." Our patents prevent others from making them.

**THE** manufacture of Sharples Tubular Cream Separators is one of Canada's leading industries. 1908 sales were far ahead of 1907—way beyond any other make, if not all other makes combined.

**The Sharples Separator Co.** Write for catalog No. 193. It will interest you.

Toronto, Ont. Winnipeg, Man.



Sharples Separators are most easily and perfectly oiled. Simply pour a spoonful of oil right down among the enclosed, dust proof gears once a week. The lower gear wheel, when in motion, sprays the oil over the gears and the single, frictionless ball bearing supporting the bowl. Most convenient, insures perfect oiling with least attention, and adds wonderfully to the easier running and greater durability of Sharples Separators as compared to others.



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30 DAYS FREE TRIAL

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Are yours, Mr. Reader? Sometimes your whole fortune is stored in those buildings. Fire and Lightning are no respectors of persons.

"Galt" Galvanized Steel Roofing and Siding are the best Fire Insurance Policy ever issued. A prevention is better than a cure—don't forget that.

The new "Galt" Shingle with its patented Gale-proof Closed-end Side-lock and continuous interlocking and over-lapping bottom lock, absolutely defies wind, rain or snow to penetrate or injure it.

Covered nailing flanges at both top and sides insure a tenacious grip of the sheathing, which no gale can loosen.

The handsome Gothic Tile pattern warrants their use on the best buildings.

"Galt" Corrugated Steel Sheets are the best made. Straight, true, close-fitting corrugations make a weather-tight roof—fire and lightning proof at the cost of a wood roof.

All "Galt" Galvanized products are made from the Best British Galvanized Steel Sheets which will last a lifetime.

Don't accept inferior goods—the "Galt Kind" cost no more than the others.

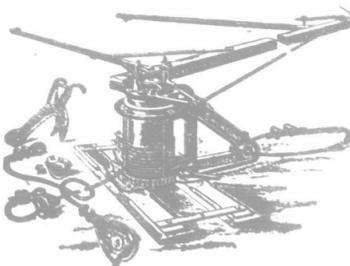
Our free Catalog "B-3" tells about these goods.

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**THE GALT ART METAL CO., LIMITED, GALT, ONT.**

Sales and Distributing Agents: Dunn Bros., Winnipeg and Regina.

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## FARMERS, FRUIT, AND VEGETABLE GROWERS



WHY ARE YOU IMPORTING PHOSPHATE AND AMMONIA WHICH IS A BY-PRODUCT OF YOUR FARMS OF WHICH YOU ARE EXPORTING MANY THOUSAND TONS ANNUALLY? BONES AND WHICH CONTAIN LARGE QUANTITIES OF PHOSPHORIC ACID AND AMMONIA

KINDLY ANSWER THE ABOVE

PURE BONE MEAL IS THE CHEAPEST FERTILIZER

THIS PLANT FOOD IS ALL FROM OUR CANADIAN SOILS AND SHOULD ALL GO BACK SEND FOR PRICES, ETC.

**THE W.A. FREEMAN CO. LIMITED**  
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## POTATOES PAY

Make them pay by using the machines that really do the work—

**CUT, PLANT, SPRAY, DIG and SORT**



There's nothing in potato machinery up to

### ASPINWALL EQUIPMENT

Write for copy of our free book telling how to make money, growing potatoes.

**ASPINWALL MFG. CO.**  
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PLEASE MENTION THIS PAPER.

# USUAL CROP OF Cream Separator Snares and Tares

If actual merit alone prevailed the DE LAVAL cream separator would be the only one made, sold or used.

But the dairy farmer with his dollars is an alluring proposition to those who "need the money," so that every season brings with it a new crop of separator fakes and fables, with some of the old conjurers over again and always a few fresh ones.

Last year the new and improved line of DE LAVAL machines literally swept the field. This year everybody has a "new" machine, which is the one thing they universally harp upon in their talk and advertising. But it is mostly bosh and nonsense. There is mighty little new to them. No more DE LAVAL patents have expired, so that there is nothing else "new" that they can lay hold of this year.

There's the usual crop of fakirs appropriating the facts of DE LAVAL separator use and the endorsements DE LAVAL separators have received, and quoting them as though they applied to their own inferior imitations of the standard cream separator.

There's the concern which makes an inferior disc separator and speaks of the "disc" separator being "the machine which has won out universally in Europe, the home of the disc separator." True, but it was the DE LAVAL that has done the winning out in Europe, as it has in America.

There's the political separator concern, with the new "year" or "cents" trademark, whose claims it is to be hoped nobody ever believes, and which manifestly practices the circus man's theory that the great American public ever likes to be fooled.

There's the only concern which has stuck to the abandoned DE LAVAL "hollow bowl" of 30 years ago, but will this year desperately join the procession of 10-year-back DE LAVAL imitations with a "disk bucket bowl" machine.

There's the "Trust," striving to complete its monopoly of dealer and farmer, harvesting much costly separator experience, largely at the expense of buyers-for-use, through trying to build a cream separator like ordinarily-made farm machinery.

There's the "mail-order" outfit, with their cheaply-made machines, bought here and there, not made by themselves or sold under the real manufacturer's name, all claiming the earth, and many of the things that should be below it.

But the merry lot changes and dwindles every year. They gradually drop out and leave their unfortunate patrons helpless with trashy machines. More will fade away this year. The dairy farmer, like the creameryman, is coming to know something of separators. He doesn't swallow mere "claims" so easily. 98% of the world's creamerymen use DE LAVAL machines. The percentage of farm users content with nothing else is always increasing.

There isn't a single reason why every man who buys a cream separator, this year should not buy a DE LAVAL. There are many reasons why he should. The best costs no more than the various grades of inferior imitating machines.

A DE LAVAL catalogue may be had for the asking. A DE LAVAL machine may be tried for the asking.

**THE DE LAVAL SEPARATOR COMPANY**  
173-177 William St., MONTREAL. 14 and 16 Princess St., WINNIPEG.

## FENCE TALK No. 6

The Page "Empire" Fence (White Brand)—there's a fence that outclasses them all, at every point of fence-value. It's the strongest wire-fence made on earth, and it will outlast two—yes, three—ordinary wire-fences.

It is not an expensive fence, although every upright and every horizontal wire is made of 9-gauge steel. Not expensive even though its horizontals are High-Carbon Galvanized Steel wire guaranteed to stand 2,400 lbs. tensile strain without breaking. (Other fences use "hard drawn" wire, that breaks at 1,800 lbs. and less.)

Not expensive, even though it's coated with a permanent white that defies weather and rust and makes it sightly enough for a palace lawn.

Decidedly not expensive, just as any Page Fence is not expensive, because the toughness of the wire, the springiness and the solid-joint lock-knot, insure that this fence will stretch tighter, stand up better, and never sag, even though but two posts are used as against three on any other fence.

With all its betterments, that no other fence even approaches, a Page "Empire" Fence costs less, in the first place and in the long run once it's up, than any fence made.

Shall we prove that to you? Ask nearest Page place for free booklet that tells about the many kinds of Page Fence (including "Empire") and shows how you can prove any fence before you buy it.

The Page Wire Fence Co., Ltd., Walkerville, Toronto, Montreal, St. John, Vancouver, Victoria.

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# EWING

Seeds of "Quality"

Sown from Coast to Coast by people who want to get the most out of their land.

By turning out the best seeds that money can buy, we don't claim to do anything superhuman.

**EWING'S SEEDS of "Quality"**

are merely the results produced by human intelligence and careful selection.

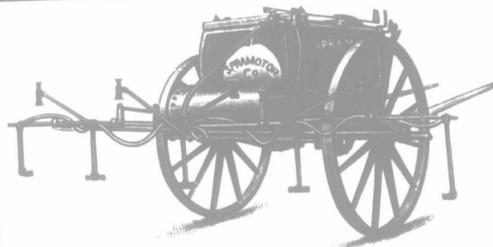
No seeds in the country have more growing ability to the pound.

**FREE:** Our New Catalogue, full of useful information. WRITE FOR ONE.

**WM. EWING & CO., Seedsmen, MONTREAL.**



### WITH THE Spramotor



shown in illustration, and one horse, you can rid your potato-fields of the blight and the bugs at the rate of one acre in 20 minutes. Has non-clogging nozzles, 12-gallon air-tank; 100 lbs. pressure guaranteed with 12 nozzles open. Agitator clean-out pressure into tank, and nozzle protector, controlled from seat. Can be fitted for orchard, vineyard and grain crops. For one or

two horses, or hand operated if preferred. If interested, write for free catalogue and study the detailed construction of the Spramotor.

**SPRAMOTOR, LTD., 1052 King St., LONDON, ONT.**

## Only One Kind of Roof I Know of is Guaranteed for 25 Years.

**O**SHAWA Galvanized Steel Shingles make a roof that is not only guaranteed, under seal and with \$250,000 back of it—guaranteed to be and to remain a perfect roof for twenty-five years: It is the only roof I know of that is sure to be a good roof for a hundred years. It's steel, you see, to start with—heavy (28 gauge) sheet steel of high quality. Can you imagine steel wearing out?—on a roof.

**S**TEEL'S only real foe is rust; but rust cannot get at the steel of an Oshawa-shingled roof, because every shingle is heavily galvanized on both sides—coated with a tin-and-zinc smelter that perfectly protects the steel against every form of rust.

**T**HAT is why you will never need to paint an Oshawa-shingled roof; it doesn't need painting, because the heavy galvanizing is a far better protection than paint could ever be. Think what you save by putting on a roof that needn't be painted, and yet will be a good roof for a hundred years!

**D**ON'T imagine our guarantee is any mere form of words. It says, in plain English, that if any Oshawa-shingled roof, put on right, leaks, or is at all unsatisfactory within 25 years, we will supply and put on a new roof free of all cost to you. Is that fair and square? Did you ever hear of another roof that had such a guarantee back of it?

**D**ON'T get the idea, either, that cost is a big factor in roofing really right. An Oshawa-shingled



roof's first cost is no more than the cost of an ordinary wood-shingled roof! Its final cost is ten times less than the cheapest wood-shingled roof! And an Oshawa-shingled roof is more than rain-proof, more than snow-proof,

and lightning-proof—insulate the building—the bolt may strike the structure, but it can't damage it. Such a roof is far, far better insurance against lightning than any lightning-rod system that ever was.

**A**NYBODY who can use a hammer and snips (tinner's shears) can put these Oshawa Shingles on right—easily and quickly. They lock underneath, on all four sides, so that every nailhead is completely covered with galvanized steel, and the whole surface hasn't a seam nor a crevice.

**S**UM it all up—a roof that costs one-tenth what cheapest wooden shingles cost; a roof that is absolutely weather-proof, fire-proof, lightning-proof—a roof that is guaranteed to be a perfect roof for 25 years (or a new roof for nothing)—sum it all up—wouldn't it be wise for you to send to-day for the booklet that tells why YOU should roof right? Just send a post card to-day to our nearest warehouse.

### OSHAWA GALVANIZED STEEL SHINGLES

A new roof for nothing if they leak by 1934.

more than wind-proof. It is not only an absolute insurance against leaks, but it is an insurance against fire and against lightning! Is that worth considering?

**O**F course you know that flying sparks or red-hot embers couldn't possibly set fire to a roof covered with one seamless sheet of steel. That one fact alone makes an Oshawa-shingled roof earn money, because such a roof gets you a lessened fire-risk premium on any building.

**A**ND lightning cannot damage a building covered with Oshawa Steel Shingles, because these in-

Ask for Roofing Right Booklet No. 16

*G. A. Pedlar*

**P**EDLAR PRODUCTS include every kind of sheet metal building materials—too many items to even mention here. You can have a catalog—estimate—prices—advice—just for the asking. We'd like especially to interest you in our Art Steel Ceilings and Side Walls—they are a revelation to many people. More than 2,000 designs. May we send you pictures of some of them?

## THE PEDLAR PEOPLE OF OSHAWA ESTABLISHED 1861 124c

ADDRESS OUR NEAREST WAREHOUSE:

<b>MONTREAL</b> 321-3 Craig St. W.	<b>OTTAWA</b> 423 Sussex St.	<b>TORONTO</b> 11 Colborne St.	<b>LONDON</b> 86 King St.	<b>CHATHAM</b> 200 King St. W.	<b>WINNIPEG</b> 70 Lombard St.	<b>QUEBEC</b> 127 Rue du Pont.	<b>ST. JOHN, N. B.</b> 42-46 Prince William St.	<b>HALIFAX</b> 16 Prince St.
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WE WANT AGENTS IN SOME SECTIONS. WRITE FOR DETAILS. MENTION THIS PAPER.

# The Farmer's Advocate

## and Home Magazine

"Persevere and Succeed."

Established  
1866.

REGISTERED IN ACCORDANCE WITH THE COPYRIGHT ACT OF 1875.

Vol. XLIV.

LONDON, ONTARIO, MARCH 11, 1909

No. 859

### EDITORIAL.

#### Lightning Attraction and Protection.

A correspondent of "The Farmer's Advocate" advances a theory that the lightning-bolt is attracted by sub-surface springs. We fail to see that this is of any practical importance, even if true, for it would cost more to ascertain positively the absence of such a vein than to protect one's buildings with rods, as many borings would be necessary to settle the point, and many successive choices might be required to find a safe site. The only point that remains, then, is the scientific one, as to whether flowing springs are the controlling factor in attracting the lightning. While such may be an attraction, experts are not disposed to regard sub-surface streams as the only or even the main magnet. It is considered that certain mineral formation is more likely to be the target. In any case, it is quite well established that, whatever the influence which draws it hither or thither, the lightning, in reaching the ground, may be deflected or guided in its course by anything which is a good lightning conductor—for instance, a steel or copper wire. High objects of almost any kind, and particularly solitary ones, such as a country church, a barn or a lone tree in a pasture field, are especially liable to be struck. In cities, lightning damage is much less common than in the country, notwithstanding the immensely greater property value per acre. Whatever the attraction, there is no doubt it pays to rod farm buildings, unless they are metal-roofed and metal-sided, in which case rods are unnecessary. Even a metal roof, with ground connection, is quite safe. Lightning originates a very large proportion of the blazes which occasion such loss in country districts, and, while the proportion of fires attributable to this cause is not usually so high as in the case cited by our correspondent, it is sufficiently large to warrant every farmer protecting his buildings, either with rods or otherwise, as indicated above.

#### Power Outfits for Plowing.

Farmers in Eastern Canada often have heard or read of the speed with which soil can be turned over with a power outfit, but few have studied the question from an economic standpoint for use on their farms. An article on another page of this issue shows the actual cost of plowing by steam last fall on an Ontario farm, one hundred and ten acres being turned over, at an average cost of \$2.39 per acre. With an eight-furrow plow, the work was accomplished in twelve days.

In localities where ways and means of saving labor are an annual source of worry, might it not be advisable for a few neighbors to cooperate in securing an outfit, or in inducing some person to procure an engine and gang? If a few farmers could guarantee work on thirty to sixty acres each, it might be possible to make arrangements as satisfactory as now prevail in threshing. A fair per cent. of the land on the average farm is ready for the plow any day after the crop is removed, and before the ground freezes up. If the plowing could be accomplished in early fall, and autumn cultivation practiced, it would assist in combating weeds, and put the land in first-class condition for spring seeding. One advantage of steam plowing is that it can be performed when the ground is so dry as to be almost impossible for team traction.

#### A Substitute for Bran.

Every business man prides himself on ability to "know a good thing when he sees it." The up-to-date farmer classes himself in the category of alert business men, and yet many of us spend half a lifetime or more finding out simple secrets which scientifically-informed men have been calling at us from the housetops to stop and examine. Within the memory of men now living, wheat bran was regarded by many as little better than sawdust, and dumped into the river by millers to get rid of it. To-day, bran commands upwards of twenty dollars a ton, and the feeder who declared it not worth hauling home would be laughed out of face.

But history has a penchant for repeating itself, and the attitude of our fathers and grandfathers towards bran is now the attitude of many among us towards alfalfa. If alfalfa were as widely and as thoroughly appreciated as bran, there would be a field or two of it on every stock farm where it can be successfully grown; and no farmer keeping cattle, sheep, hogs, poultry or horses would give up trying short of at least ten successive attempts. If his land were too wet, he would underdrain it; if too sour, he would lime it; if too poor in humus and plant food, he would manure it—anything to grow alfalfa, which is better feed than clover, and, if well cured, is nearly equal to wheat bran in feeding value. It may be not quite so digestible, but the difference is not great. Analysis shows the following comparison:

	% Digestible Protein.	% Digestible Carbohydrates.	% Ether Extract
Alfalfa .....	11.	39.6	1.2
Wheat Bran .....	12.2	39.2	2.7

From this we see that good alfalfa hay contains practically the same amount of the elements which go to produce heat, fat and energy, and nine-tenths as much of the very important element, protein. When it is explained that the special value of bran, apart from its laxative and diluent properties, is in supplying protein to balance up rations of farm-grown feeds usually deficient in this element, and when it is shown that alfalfa contains within one-tenth as much of this constituent as bran, the immense economy of alfalfa, as a home-grown source of protein, begins to impress one. This is not mere theory. Practice bears it out. The well-known Eastern Ontario dairyman, Henry Glendinning, feeds no bran or grains at all, depending entirely upon alfalfa to supplement his corn silage and other bulky feeds. He obtains good results, and insists that he is producing milk at a rock-bottom feed cost. Others have similar experience.

Some fail to realize full value from alfalfa because they let it become too mature and woody before cutting, some because they do not cure it aright, some few because their stock being unaccustomed to the new feed do not all relish it at first, and many because they do not feed it judiciously.

To derive best and most economical returns from bran, one would not feed it alone, nor yet as the main part of the ration. This would not be ideal practice, even were it cheap as hay. To make the most of bran, one would feed it as a supplement to balance up other feeds rich in carbohydrates, but deficient in protein. So with alfalfa, only that, being cheaper, it need not be fed so sparingly as bran. But it should not be used alone, for best results. Corn silage and alfalfa make an ideal roughage for milk or beef production. It is likewise adapted to supplement corn fodder, corn meal, timothy and straw, all of which are relatively deficient in protein.

Another point in favor of alfalfa is the large

yields that may be obtained, five tons per acre year after year, without reseeding, being easily obtainable on suitable soil. Fertilizing is not necessary, though beneficial, and may consist of an occasional light dressing of manure, with intervening applications of wood ashes, lime and bone meal. Thus fertilized, on well-drained soil, the alfalfa will draw freely on the nitrogen of the air, produce luxuriantly, and, when plowed up, will leave the land much more fertile than when seeded down.

The point we would reiterate and impress is the economy of home-grown alfalfa as a substitute in part, at least, for purchased bran. There is a mint of money for Canadian farmers in this idea. Think of five, or even four, tons of bran produced per acre, with a minimum of labor, and the land finally left richer than at the beginning! Awake to the opportunity! Do not be as those who allowed bran to be turned into the river, thinking it not worth taking home. Well-cured alfalfa is nearly as good a feed as bran, and you can grow and harvest it on your own farm for three or four dollars a ton, if not less. Even supposing the first crop of the season is occasionally lost for lack of good haying weather, there will be profit on the second and third, and usually all three may be secured.

#### The Sheep-breeders' Petition.

That the petition recently distributed among Canadian sheep-breeders, and commented upon editorially in "The Farmer's Advocate" of February 18th, was not endorsed in its entirety by the generality of those whose signatures were invited, is the candid assurance with which our esteemed friend Mr. Campbell comes forward in this issue. While all are agreed as to the propriety and prudence, from the American standpoint, of an early removal of the United States' thirty-day sheep quarantine, a good many of our breeders objected to that portion of the petition which suggested that, as a quid pro quo, the Canadian Government should offer to lift the embargo on American hogs coming into our packing-houses in bond.

Mr. Campbell is of opinion that our former editorial left it open, to be inferred by uninformed or casual readers, that this suggestion was sanctioned by Canadian sheepmen as a body. No such impression was intended to be conveyed. We merely stated that such a petition had been circulated, and, in referring to the exceptionable request, spoke of "the petitioners," and not of the whole breeding fraternity. If any doubt were left in anyone's mind as to how generally the petition was signed, we take occasion to state that it was by no means unanimous. "The Farmer's Advocate" is aware that a number refused to sign it, while others had subscribed their names without careful reading, and without cognizance of all that was contained, and yet others because they were in sympathy with its main purpose. While this is the case, and while, as Mr. Campbell points out, the petition was not endorsed by resolution at the annual meeting of the Dominion Sheep-breeders' Association, on the other hand, neither was it repudiated or amended, although it had previously been hotly discussed at the Swine-breeders' meeting, and a number of delegates who had attended this session were present at the Sheepmen's deliberations.

We are pleased to accept Mr. Campbell's assurance that he declined to endorse the petition as it was circulated, and are perfectly confident he voices the sentiments of sheepmen generally. The petition was unfortunately framed, though its essential purpose is justifiable and sound, as Canadian flocks have for some months been free of

## 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.

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scab, to guard against which it was that the sheep quarantine was imposed.

Dr. Rutherford assured his hearers, in an address at Toronto, that no case of scab had been reported to his department from any point in Canada for some months past.

### Suitable Varieties by Grafting.

In all parts of Eastern Canada there are farmers who have apple trees or other fruits in their orchards, of varieties that they know are not the most desirable. They do not care to uproot the tree and wait for the development of a young tree. All have heard of the possibilities of top-grafting, but many neglect this important line of work because they never have seen it done, and consider themselves incapable of making a success of it. Perhaps a neighbor has tried it and failed. Without allowing for unfavorable conditions, such as worthless scions or wrong methods, due to being ill-advised, the practice is condemned. Farmers throughout the community neglect this work, and allow the old and comparatively worthless varieties to remain.

In the Garden and Orchard Department this week particulars are given that should enable any man of ordinary intelligence to obtain satisfactory results from top-grafting. Try a few this spring, and in the near future make the work so extensive as to do away with inferior varieties.

### Appreciation Grows with Reading.

I beg to thank you for the splendid knife which I have received as a premium for sending you a new subscription to "The Farmer's Advocate." I can say it is really better than I expected. The new subscriber is perfectly satisfied with your paper. I will do my best to secure more subscribers for you. The more I read your paper, the more value I see in it.

Russell Co., Ont. JAMES B. CUDMORE.

### Fraud in Apple Business.

For several years, prominent fruit-growers and buyers have supported the Government in laudable efforts to insure the packing and the export only of such fruits as would give satisfaction to the consumer, and so result in the development of Canadian fruit trade. In spite of legislation and precautionary measures, the acts of unscrupulous men escape detection, and Canadian fruits are given a black-eye that discredits Canadian-grown stock. In South Africa, a severe setback was administered recently by the arrival of a cargo from Montreal, in which were over 1,000 packages of apples. Close inspection on landing revealed the fact that eight per cent. of these were infected with scab (*fusicladium denitricum*). This may have developed during transit. In addition, consignees claimed that barrels contained small and inferior fruit in the middle of the package. Some, too, were disappointed in not getting the varieties they ordered, but this could not be considered a grievous offence, provided the shipper wrote to explain the matter, and made the price right. It is not always possible to secure the quantity of certain varieties that are required to make up an assortment.

Canadian packers and shippers can furnish no plausible excuse for putting up apples noticeably infected with scab, or for facing low-grade apples with specimens of higher standard. Every sane man in the business knows that it is not only contrary to law, but also that it results in serious injury to the apple trade in the country or countries to which the fruit is sent. No doubt the man who consigned these apples to Cape Town lost heavily on the shipment, and perhaps later developments will show that a fine has been imposed. However, the loss to other shippers and to the orchardists never will be known. When such offences are ferreted out, the greatest possible publicity, with name and address of culprit, should be made through the press. In the future, producers should refuse positively to sell a barrel of apples, or to have anything whatever to do with the man or men responsible for such damage to a worthy industry.

Some may feel inclined to lay the onus upon the inspectors for allowing such apples to escape them. It must be remembered that, to open every barrel, and to go half-way down into every barrel, would entail enormous expense. It is quite possible that eight barrels out of every one hundred may escape the eagle eyes of the most expert. Defects frequently are detected, and in every case steps are taken to trace the matter to its source, and to mete out consistent punishment. The growers must do their part to insure satisfactory pack. Spurn the man who has been found guilty of fraudulent practices, and do business only with reliable buyers who employ competent and trustworthy packers, if you would establish a healthy market and procure maximum prices. Better still, form a co-operative association.

### Why the Boys Leave.

Editor "The Farmer's Advocate":

"The Farmer's Advocate" has for years been working to convince the farmers of Canada that farming is the most independent, the healthiest, the happiest, the most profitable, and, in short, the most desirable occupation to be found. And yet, while this is a proven fact, it is well known that the boys by hundreds leave their country homes.

The farm needs the boys, and the boys need the farm. No one is so suited for farm work as the farmer's son, and the best place for most boys is on the farm. If the boy leaves the farm, and becomes a tinker, tailor, soldier or sailor, who will work the farm? Will tinkers, tailors, soldiers and sailors jump their jobs and begin farming? It will be a poor outlook for the farm if we have only these to depend on to work the land.

It has been stated that boys are getting educated for anything but farming. It is also true that our Canadian railways and industries are heavily bonused, and get exemption from taxation, etc., so that they are able to offer higher wages than the farmer can afford to pay, and thus the boys are taken from the farm, and the farmer has to hire the cull workmen which the manufacturer will not have. No one pays farmers a bonus; the farmers have to pay the bulk of these bonuses.

I left the farm myself, and so did many of my schoolmates and friends, and I met many more farmers' sons in our industrial establishments, and I can truthfully say that they were, almost without exception, the pick of the men, and the main dependence of the foremen. The manufacturer well knows that a farmer's son is not afraid of work, but is well used to it. He is also brought up in pure air, on good plain, ordinary food, and usually is kept away from the vices of city life. Consequently, the farmer boy has a clear brain, powerful muscles, and usually an honest, clean character. The city boy seldom worked before. He has an appetite for little else than lemon pie and jelly-cake, and has spent his boyhood days loafing about, smoking cigarettes and learning all manner of evil. Hence, he has not the brain and muscle possessed by the farmer boy, and often is idle and impudent. Need I explain why farmer boys are preferred?

I am sure many boys would not have left the farm if the father had tried the right way to keep them home. I ask boys why they quit farming, and most of them tell me they like farming first-rate. Few have a taste or gift for mechanics or some other trade. Others say that father wanted them to work for nothing, but that they were willing to work for less wages for their fathers than for anyone else. When they asked for a small wage, they were answered thus: "My father never paid me anything, and I will not pay you." They say to me: "Boys come back from town on a visit, all dressed up fine, and we feel small. I knew if I had even a small wage I could dress like that too, and bank money as well. I asked for a share in things, but 'No!' was the answer; work for nothing or get out." "Father said farming does not pay, and there is nothing for you. Well, said I, this is a poor business, and I will seek employment that does pay."

Others said that there was so much choring night and morning that they never could get away. They wanted to have at least regular evenings off, and have a holiday occasionally. They objected to a life consisting of nothing but work, eat and sleep. They would like an hour or so before bedtime to read or play games.

Again, others complained that, when at work, the farmer plows with the good team, and works with good tools, while the boy has to drive the balky team and use the plow with a cracked handle and broken point; chop with the dull axe, saw with the dull saw, use the fork with the bent prong, and milk the cow that kicks or is desperately tough to milk. If the boy complained, he was told that the poor workman always quarreled with his tools. "You would do nothing, anyway; if you were any good I would get you something else, but it is not worth while." Finally, the boy gets sick of it, and leaves, and then the old, broken tools are thrown away, and the tough-milking cow and balky team are got rid of. The hired man uses new tools, and takes the wages which would have been more than sufficient to keep the boy at home.

There are several other reasons why boys go, but this is enough for now. In conclusion, let me say that we boys know many farmers who treat their boys right, and we greatly admire such a man, and envy his lucky boy. And, although the other kind does not understand boys as he might, he is usually a fine fellow, anyway. Every boy spoke highly of his father. Around too many farms there are some "Leave-the-farm-and-get-rich" story-books. I advise farmers to light the fire with such trash, and get the boy something to read that is sensible, like "The Farmer's Advocate"—something to teach him the dignity of farming, and how to make money at it.

THE BOY WHO LEFT—AND CAME BACK.

## HORSES.

### Clydesdale Certificate of Service.

As the season for collection of stallion service fees has arrived, breeders of Clydesdale horses, as well as owners of Clydesdale stallions, should remember the changes in the regulations governing the registration of Clydesdales in Canada, which were made last year.

In order to record young animals in the Canadian Clydesdale Records, it is now necessary to forward, along with the usual application, a certificate of the service of the dam, signed by the owner of the sire at time of service. This certificate may be furnished simply in a written letter, or the common transfer blank may be filled in as a certificate. Probably the more common plan will be to give the certificate as a receipt for service fee.

It should not be forgotten that the service stallion must be recorded as the property of the owner before his certificate of service can be accepted. Very often this matter is neglected, and when the animal has changed hands several times the situation becomes very difficult to straighten out.

Vigilance in all matters relative to the regis-

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tration of pure-bred stock has become more manifestly a necessity from year to year.

In order to protect the integrity of Canadian registration, it has been necessary, not only to impose more stringent regulations, but in some cases to prosecute, of which the recent conviction of a Toronto horseman, on a charge of forgery in connection with the case of the sale of a Canadian-bred mare, as Jean Austen (imp.)—10373—, is an example.

Owners of pure-bred animals, however, will find in the vigilant care which the Clydesdale Horse Association of Canada, as well as the National Live-stock Records Office, exercise over their records, a protection which will more than repay the extra trouble which more stringent regulations impose upon them.

J. W. SANGSTER,  
Secretary, the Clydesdale Horse Ass'n of Canada.

### Points of a Clydesdale Horse.

The head of the typical Clydesdale shows a broad jaw, ending, as a rule, in a not very fine or well-tapered muzzle, but with large, open nostrils. His eye is usually full and vigorous, yet mild; his forehead broad and full between the eyes; while, from the eyes, the forehead tapers gradually upwards to the ears, which are long and active. Breeders of Clydesdales should attach considerable importance to these points, as a horse of such a description will generally be found to be of excellent temper, easily trained, docile, and very wise in cart of plow.

Experience alone can teach one when the head is well set on to the neck; but the latter should be strong, massive, and of medium height; while the shoulder should be more oblique than in the English draft horse. This, indeed, is one of the distinctive features of the Clydesdale, as to his formation of shoulder is largely owing his long, quick step, for which he is so justly admired. The "upright" shoulder of the English cart-horse may certainly give greater power in the collar; but if shortness and slowness of step be considered, this cannot be called an advantage. The English horse, besides, is more accustomed to sheer dragging and to working in chains, while his Scottish rival is chiefly employed in the two-wheeled cart, which occasions a considerable amount of weight being balanced on the animal's back. A medium slanted shoulder gives a horse, in such circumstances, an advantage; and doubtless those who carted the minerals of Lanarkshire in ante-railroad days found this formation well adapted for their purposes. Even yet, no one will affirm that it is unsuited to the traffic of the day, if he will only take the opportunity offered for forming an opinion by the sight of the Clydesdale horses yoked to a cart or lorry in the streets of Glasgow.

Good sound legs and feet are essential to all horses, and are certainly not undervalued in the Clydesdales; in fact, some judges, in their admiration of such good qualities, frequently lose sight of "top" altogether.

Quite as essential as the slightly oblique and closely-topped shoulder of the Clydesdale for his long, quick step, is a strong forearm. This part, from a side view, should be broad; loaded with long, strong muscles, so as to give him full power to bring forward the part beneath; and in length should be proportionate to the length of the shoulder. A flat and broad knee is also essential; but this is a point sometimes overlooked by the best of Clydesdale judges, who prefer strength of bone immediately under the knee in many horses, and so the leg comes to the ground as if there were no joint between the elbow and the pastern.

Deficiency of bone under the knee has not infrequently caused the rejection of many good horses in the show-yard in favor of animals which happen to be thicker at that particular place, yet have not half the strength, owing to the bone not being of the proper shape, or to the entire absence of sinew. The shank-bone should be flat from a side view, thick and gently rounded from a front view, and tapering to an edge as it goes back. The late Mr. Fulton used to say he liked the "razor-legged" ones, an expression which conveys the idea of what this part should be. The back, from the knee down, should possess a nice flowing fringe of silken hair, which should spring from the very edge of the bone. This hair should be of what a judge of a Skye terrier would style a "pily" nature; and good judges will not have a horse at all the feather of which has a coarse, matted appearance. Possibly too much attention is paid by Clydesdale breeders to this point, and many will not exhibit at certain shows because their horses at the particular time happen to be what they term "bare of hair." The hair certainly creates a false impression of strength of bone, as an animal which has a broad forearm and well-developed knee, if deficient in "feather," does not compare well with one possessed of a nice flowing fringe several inches long; and this is decidedly disadvantageous; but the high value set upon nice silky hair is on account of its being, in all cases, a certain indication of a strong, healthy bone, as the hair of a short, coarse matted kind suggests a decided tendency

to grease. All horses have a tendency to lose their hair when being put into show condition (i. e., loaded with fat like a bullock), and so "blistering," it is to be regretted, is commonly resorted to in order to strengthen its growth. The hair produced by this process is not, however, so silken or so fine as the natural, and the difference is easily detected by the practiced eye.

The sinews of the leg should be thick, strong, thrown well back from the bone, and capable of being felt with the hand; if not, the leg is not a good one, however thick, as a soft, round leg, in which the sinews are not very well defined, will not stand work.

The lower end of the shank-bone, or fetlock, should also be large in all, so as to give full play to the tendons; and Clydesdale judges are also very particular as to this, and also to the pastern, which, during the last few years, has come in for a large share of attention. No doubt an upright pastern suits well the upright shoulder and slow action of the English draft horse, a conformation which can scarcely be called the best for any purpose; but it will not do in the Clydesdale, which requires a pastern to suit the formation of the shoulder, and to confer the necessary elasticity to counteract the concussion caused by his quick, firm step. Short, upright pasterns always get worse with age and feeding, and the action, in due course of time, becomes impeded. A horse with an upright pastern has little or no command of his foot, and literally walks as on a crutch; and if he has no power of his foot, he cannot have much in his shoulder. The streets of Glasgow are very trying to horses, which have to scramble for a footing in the furrows between the hard, smooth paving-stones, and horses with upright pasterns are sometimes almost powerless to move, where those with pasterns moderately sloped, and of a medium length, can walk with comparative ease. Farmers around Glasgow are alive to this, and will not readily use a stallion which has this defect, however strong and shapely. Without a good sound, well-shaped, healthy foot, a horse is of no use at all, however symmetrical and strong. A dissertation on the form, defects, etc., of the foot is not required here; it suffices to state that the Clydesdale is generally sound on that point, though subject,

like all other breeds of the equine genus, to its various diseases.

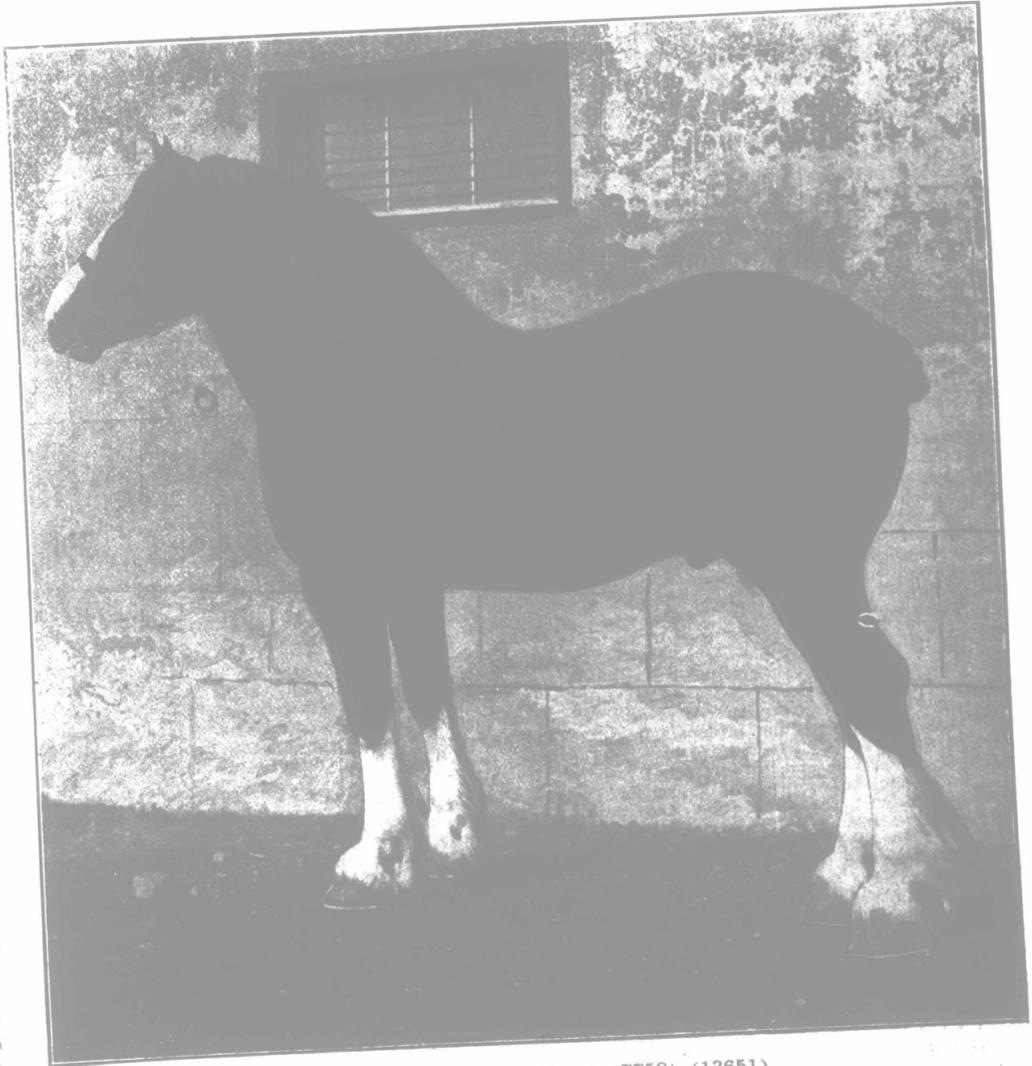
An undue length of back is not an uncommon defect in the formation of the Clydesdale, and flat, badly-sprung ribs—the last of the latter occasionally very short—form defects which it should be the object of breeders to remove. The back is not infrequently low, and the horse, at first sight, looks as if he had no command of himself, the barrel merely forming a bridge between the fore and hinder ends. The chest is generally low, broad and full, if the body is large and round-ribbed; if not, it is narrow, and the horse has a weak, "wedgy" appearance. And in street traffic, this want of breadth places him, sometimes, in rounding corners, under command of the shafts of the wagon or lorry, if at all heavily laden.

Broad, low-set hind quarters, with muscular thighs, descending into broad and proportionately-developed hocks, sum up the good points of the hind end of the Clydesdale. Narrow hocks are so subject to thoroughpin, etc., that most breeders avoid them, though there should be no perceptible marks of unsoundness. Straight hocks are not liked; but if the other parts are proportionate, and the action sound, no exception is taken to this formation. It is as a work-horse, however, that the Clydesdale should be considered, and it is questionable if a straight hock affords as much propelling power as one moderately bent. The muscles surrounding the hocks should be strong and firm; and objection is always taken to animals which have them loose and flabby, or which, to use a breeder's phrase, have "fleshy hocks."

From the hock to the ground the leg should be short, broad, flat, clean, evenly, and straight or slightly inclined forward, the sinews standing out from the bone, and having a similar fringe of hair to that on the fore leg, and rising as high as the bottom of the hock-joint.

The hind pasterns are a little larger, generally, than the fore ones, and are more inclined, but not so much as to give the idea that they are not supporting the quarters. Short, steep hind pasterns are a very bad fault, as the animal is always sticking its toes into the ground.

In examining a horse, when standing, a good



President Roosevelt (Imp.) [7759] (13651).

Clydesdale stallion; bay; foaled 1902, imported and owned by Smith & Richardson, of Columbus, Ont.; winner of third prize at Canadian National, Toronto, 1908; first and championship at Central Canada, Ottawa, 1908; second at Ontario Horse-breeders' Exhibition at Toronto, 1909, and first and championship at the Eastern Ont. Live-stock and Poultry Show at Ottawa, 1909.

judge will, in addition to running his eye over the various points mentioned, see that he stands even and firm on his feet, which, in some horses, are inclined slightly inward. To be the least inclined outward is a bad fault, and one which gets worse with age. As regards the hind legs, a glance will tell if they are all right with the animal, and hocks close to each other, and the feet at the proper place for supporting the weight of the body, while at the same time giving the animal the fullest power for the use of the hind leg, in which lies nearly all the propelling power.

In walking, the horse should, if approaching you, come with his head well carried, and with an apparently measured stride, lifting his feet well off the ground, and placing them down again regularly, evenly, and with apparent deliberation.

On a side view, one can notice if his action be even—i. e., if his fore and hind action be in unison—for, in horses with long backs and weak loins, the two ends seem to be under different control, and the hind legs, being in a manner dragged with the toes along the ground, an unpleasant effect is produced.

In going away, at a walk, a horse should plant his hind feet forward as deliberately as his fore ones, at the same time raising and bending the leg at the hock, which should be evenly carried forward. If the hocks are turned out in moving them forward, the action is not good; and a Clydesdale breeder considers this an exceedingly bad fault in either horse or mare.

In trotting, the horse should bend the legs at the knees and hocks, and from a hind view the inside of the fore hoofs should almost be seen at every step. If the animal be inclined to move wide behind, this fault will easily be discovered at the trotting pace. THOMAS DYKES.

### Sterility in Mares.

Sterility, either temporary or permanent, is not uncommon in mares. It may depend upon physical or organic causes, and may cause permanent barrenness. Of course, hermaphrodites will not reproduce, and monstrosities and hybrids seldom do; but in this article we refer to mares that are apparently normal and healthy. Mares that have been used for work until they have become old, and then retired to the stud, frequently prove infecund; or mares that have bred when young, and then allowed to reach an advanced age before being bred again, will often fail to reproduce. The infecundity in these cases is probably due to the genital organs having lost their power from prolonged want of function. Nothing can be done to restore the activity of the organs.

Change of climate, in many cases, has a temporary, and in some cases a permanent, influence on fecundity. In most cases this influence disappears in a few months or a year.

Bad hygiene may also cause sterility, but this can be remedied by changing to favorable conditions. Underfed or overfed mares do not breed with the same regularity as those in moderate condition. This is especially the case with very fat mares. The means of removing these causes of sterility are obvious.

Excitable or vicious mares do not breed with the same regularity as those of a quiet, gentle disposition. It is claimed by some that, with mares accustomed to work, active exertion, even to produce fatigue, before being bred, is favorable to conception. The Arab often gallops his mare for a long distance, then breeds her, and allows her to stand at rest for several hours.

Diseases or alterations of the generative organs, as the ovaries, Fallopian tubes, uterus or vagina, will prevent conception. When these diseases become chronic, they usually cause permanent sterility, although they do not apparently interfere with the mare's comfort or usefulness in other respects. In fact, such diseases are often present, and the only circumstances that lead to the suspicion of their presence is the animal's failure to conceive. Irregular oestrus, occurring either too frequently, or at too long intervals, indicates disease of the ovaries; but disease of the other organs of generation, and in some cases even of the ovaries, sufficient to prevent conception, may be present, and, at the same time, the periods of oestrus appear at regular intervals, and nothing abnormal can be detected, except as stated—a failure to conceive. It is seldom that treatment for suspected disease, as above, is successful.

Doubtless, a somewhat common cause of sterility, especially in nervous mares, is a spasmodic contraction of the opening through the neck of the womb (called the os uteri) during the act of copulation. This, of course, prevents the entrance of the semen into the uterus. Mares in which sterility is due to this cause may be artificially impregnated. Artificial impregnation can be performed in different ways. The most popular method is, probably, as follows: A rubber capsule and a syringe especially designed for the purpose is purchased from dealers in veterinary instruments. The syringe is immersed in a warm, sterilized solution, as a two-per-cent. solution of carbolic acid in water, kept at a temperature of

100 degrees Fahr. The capsule is placed over the head of the stallion's penis, and the act of copulation is then performed. When the act is completed, the capsule containing the semen is removed, and a quantity of it drawn into the syringe, care being taken that the temperature be not reduced. Unless the act is done quickly, it is wise to immerse the capsule in the warm solution mentioned. The operator, having disinfected his hand and arm, introduces his hand into the vagina, and inserts the nozzle of the syringe through the os uteri into the uterus, and then shoves the piston and forces the contents of the syringe into it. It is possible to impregnate several mares with the result of the one act of copulation, if the mares are in a proper state of oestrus.

Probably the most common cause of sterility is a chronic closure of the os uteri. In all cases where mares repeatedly fail to conceive, it is wise to examine the os. This is done by inserting the sterilized and oiled hand and arm through the vulva into the vagina, until the fingers reach the os. In normal cases, one or two fingers can be easily passed through the os into the womb, but when there is a chronic closure, the opening must be dilated. This can often be done by a rotary motion of the finger, with considerable pressure. In other cases the finger has not sufficient strength, and a blunt sound, about the size of a catheter, or a piece of perfectly smooth, hard, tough wood, or an instrument especially designed for the purpose, is used to dilate it. There are cases in which there is a fibrous growth sur-

ly justified in assuming that there is some chronic disease of the generative organs that cannot be corrected. "WHIP."

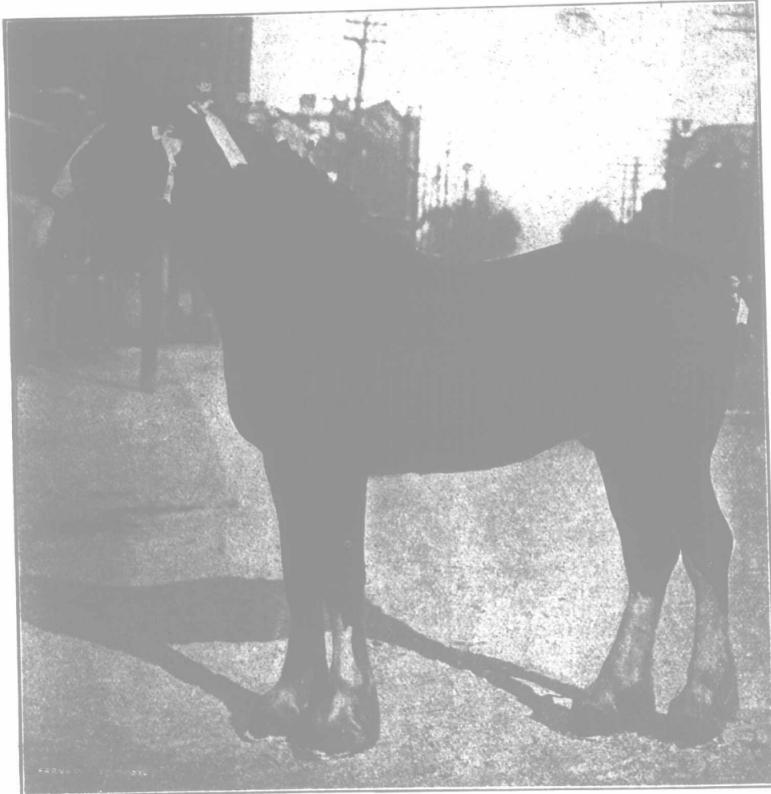
## LIVE STOCK.

### Color of Shorthorns.

At most sales of Shorthorns held of late there has been a marked preference shown for animals of a red color, especially those of a deep, entire red. The reason of this, no doubt, is to be found in the fact that foreign buyers, who are often our best customers, apparently prefer to have them of that hue. The mighty dollar, therefore, rules the market, and, in order to catch it, breeders who want to sell to advantage have been trying of late to meet the demand by producing red animals as far as they could. Red, however, especially a dark, entire red, is not the characteristic color of the Shorthorn; in fact, there are more bad ones of that hue, I think, than of any other. By steady perseverance, and making color the main point, it would, no doubt, be possible, in course of time, to breed our Shorthorns all red. But surely this would not be desirable. Indeed, it will be found that the great majority of our finest specimens have not hitherto been of that color, and there is good reason why it should be so. Let us look into the matter a little.

It was Charles Colling who may be said to

have founded the breed. There were good Shorthorns, no doubt, before he began, but it was he that set about collecting the best that were then to be got, and, being a consummate judge, he was eminently qualified to do so. Then, by careful selection and close breeding, he effectually stamped the breed with the characters that have made it famous. This he accomplished mainly by the use he made of the bull Favourite 252, and his cross-bred son, Comet. Favourite proved an extraordinary good getter from the very first, which no doubt induced Colling to use him as he did. He kept this animal on until he was thirteen or fifteen years of age, breeding in and in with him to a degree almost incredible—so much so that we may almost say that it was Favourite who really made the improved breed. There seems to be no authentic portrait extant of Favourite, but we



Royal Albane [8366].

Clydesdale stallion colt; bay; foaled May, 1907. First and champion in Canadian-bred class, Winnipeg, and Canadian National, Toronto, 1908. First and champion, Ontario Horse-breeders' Exhibition, Toronto, 1909. Exhibited by Thos. Mercer, Markdale, Ont. Sire Breadalbane (imp.).

rounding the os, which prevents its dilation, even with the instruments named, and it is necessary to use a cutting instrument. In such cases it is better to allow the mare to remain barren. When the os has been dilated, as described, the mare should be allowed to stand for a couple of hours, and then bred.

It is claimed that a common cause of sterility is an acid condition of the vagina and uterus, and that what is known as "The Yeast Treatment" will be successful. This consists in adding to an ordinary yeast cake sufficient water to moisten, and allowing it to stand for twelve hours in a moderate temperature. Then add, with brisk stirring, a pint of lukewarm, recently-boiled water, and allow to stand 8 to 12 hours. It is now ready for use. During the early period of oestrus this fluid should be heated to about 100 degrees Fahr, and injected into the vagina, and a little into the uterus. The next day the mare should be bred.

Unfortunately, there are many obscure and unremovable causes of sterility in females. When the general appearance of the animal is healthy, and a manual examination of the organs reveals a normal condition, and, at the same time, repeated attempts fail to cause conception, we are general-

ly justified in assuming that there is some chronic disease of the generative organs that cannot be corrected. "WHIP."

Let me run over the names of some of the most important animals of a roan color, beginning with Favourite 252, his son Comet 155, and the great herd matron Princess, with her light-roan daughter Eliza, both very prolific cows, and progenitors of the Gwynnes and other famous

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families. Princess herself was got by Favourite, and her dam, also. Elvira, again, was by Phenomenon 491, who was a son of Favourite. It will thus be seen to what an extent the early Shorthorns were saturated with the blood of Favourite, for he, along with Comet and Princess, may truly be said to have been the source from whence have come all the finest early specimens of the breed. I may also mention Robert Colling's excellent bull Wellington 679, who was got by Comet; Bates' Belvidere 1706, of the Princess blood, which did so much to improve the Duchesses; and Duke of Northumberland 1940, which Bates thought to be the finest bull he ever bred. Now, the color of both Belvidere and the Duke was of the true Favourite pattern, and so was that of Cleveland Lad and others I am about to mention, viz.: The Marquis of Exeter's Emperor, Belleville, the Baron of Ravensworth, Sir Thomas Fairfax, Buchan Hero, Satellite 1420, Towneley's Frederick 1149, and Master Butterfly; also Culshaw's favorite cow, Barmpton Rose, Earl Brownlow's Victory, Wilkinson's Will Honeycomb, also his Queen's Roan and Lancaster Comet 11663 (whose blood has regenerated the modern Shorthorns), likewise his finest cow, Queen of Trumps, Arbutnot's long-lived Anthony 1640, etc.

Then, to come later down, we have the Booth bulls, Crown Prince 10087, and Commander-in-Chief 21451, likewise their most famous cows, Bracelet, Bridesmaid, Queen of the May, Vivandiere and Lady Fragrant; Wiley's bull, Van Lunck, Barclay of Ury's best cow Lady Sarah, and her dam, Mason's Portia; also the principal Ury bulls, Mahomed 6170, and The Pacha 7612. At Sittyton, the most important animals and most successful breeders were of this roan color, viz.: Fairfax Royal and Forth, who were the two finest-looking; Lancaster Comet 11663, Champion of England 17526, Roan Gauntlet 35284, Grand Monarque 21867, Scotland's Pride 25100, Pride of the Isles 35072, and Prince Alfred 27107, who were the best getters; also the remarkable breeding matron, Princess Royal (dam of Roan Gauntlet), and the beautiful cow, Violet's Forth, which went to America.

In the old Uppermill herd, I need only mention Marr's finest animal, Heir of Englishman 24122, and the beautiful Seraphina cows from whom he sprang, also his bull, Cherub 4th 33359, of the same blood. I must also not omit to mention the celebrated Bates bull, Duke of Connaught 33604, sold at Dunmore for 4,500 gs. He, too, was of this light-roan color, as may be seen by his portrait in Mr. Sinclair's book, at page 338; and Sir Arthur Ingram 32490. To come down to still later times, I may mention the Sittyton-bred bulls, Clear the Way 47604, Cayhurst 47560, Field Marshal 47870, Scottish Archer 59893, Wanderer 60138, and Roan Robin 57992—all splendid animals, and sires of renown. Also Mr. Duthie's many specimens, such as Mario 51713, Star of the Morning 58189, and Pride of Collynie 75248. This last-mentioned, beautiful animal is just of the real Favourite pattern to a T. (see the portrait in Sinclair's book, page 448). Then we have other such notables as the King's Royal Duke 75509, New Year's Gift 57796, Mr. Willis's Count Victor 66877, Bapton Diamond 78289, Bapton Favourite 76080, and Bapton Champion. The Newton bulls, Cornerstone 68406, Pride of Morning 64546, and Fascinator 88569, the last mentioned bred at Jackston, as were also Choice Goods 76350, and Royal Emblem 82154, of the same roan tint, and so was Sir J. Gilmour's great beast, Royal Archer 82127.

But, not to weary the reader longer with a string of names, I shall conclude with two of the most recent notables, namely, Linksfield Champion 86401, and Chiddingstone Malcolm, both of them still repeating the light-roan pattern of Favourite, with the red about the side of the head, neck and shoulder.

This constant reproduction of the peculiar roan color of Comet and Favorite in our best Shorthorns seems to me an interesting fact, and one of some importance in regard to the action of heredity. Those I have mentioned are merely a selection from a multitude of similar specimens. Such a predominance of this particular color in our finest animals should surely make breeders pause in their hankering after red, and, I hope, may even induce our foreign customers to reflect, and to see that they are on the wrong track in so persistently running after that color.—[T. F. Jamieson, in English Live-stock Journal.]

**Charred Corn for Crippled Pigs.**

Editor "The Farmer's Advocate":

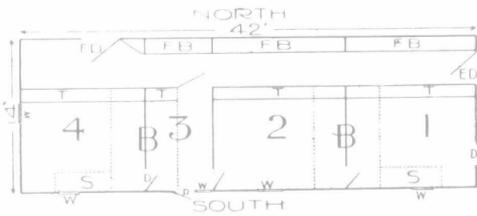
In your issue of February 25th, G. D. S. asks for remedy for crippled pigs. I think, if he would take ear-corn and burn it in the stove until it is well charred, and feed the pigs this for a few days, he would find it beneficial. I have tried it a good many times, and never knew it to fail to bring them on their feet again inside of a week. Stormont Co., Ont. R. H. RAYMOND.

**Simple Pigpen Plan.**

Editor "The Farmer's Advocate":

I have noticed your request in "The Farmer's Advocate" for plans for pigpens, and I am sending you a plan of my pen, which was built in 1900. The pen is 42 feet long by 14 feet wide, and 9 feet to eaves. It is built on a stone wall, and the floor and troughs are made of cement. There are four pens. Numbers 1, 2 and 4 are each 12 feet by 9 feet, and number 3 is 6 feet by 9 feet. There are doors between each pair of pens, and also a window on the south side, large enough to let in plenty of light; also used to clean out pens. Numbers 1 and 4 have each a second window. Pens number 1 and 3 have doors going into yard, and the doors are high enough up to admit of loading into a wagon from them. There are two sleeping berths, marked B, in dotted lines. These are 3 feet above the floor level, and are built on the partition dividing the pens, and extend three feet over each pen, and a slide (S) six feet long and 20 inches wide, with slats across, is used for the pigs to go up.

The berth between pens 1 and 2 may be used from either pen when convenient, by simply closing the door at top of slide S, and carrying slide



Mr. Jackson's Pigpen Plan.

around into the other pen, and hooking it on and opening door on that side. This arrangement of berths gives all the floor room for use of hogs, and allows the trough to go the full length of the pen, except where the door from feed alley goes into pen 3. The feed alley is 5 feet wide and has two doors for entrance. A feed box (F B) 30 feet long and 18 inches wide, with partitions, runs along feed alley on side next to wall. The floor has a slant away from the troughs, enough to carry all the drip away, and the sill at the back side is 4 1/4 inches above the

**A Profitable Lot of Pigs.**

Editor "The Farmer's Advocate":

In compliance with your invitation to those having kept hog-feeding accounts to favor your paper with them, I submit the following:

Nov. 15th, seven Yorkshire pigs 6 weeks old, \$1.75 .....	\$12.25	
Nov. 15th, 1,110 lbs. middlings, \$22.00 per ton .....	12.21	
Jan. 9th, 360 lbs. middlings, \$22.00 per ton .....	3.96	
Jan. 9th, 500 lbs. corn, 68 cents per bushel .....	6.07	
Jan. 9th, chopping 500 lbs. corn, 6 cents per cwt. ....	30	
February 23rd, sold 766 lbs. pork, at \$8.50 .....	65.11	\$65.11
Profit .....	30.32	\$65.11

Regarding these accounts, I might say no account has been taken of skim milk fed. As we were feeding quite a number of calves at the time, these pigs did not get more than one-half of their drink of skim milk. They were farrowed on October 1st, and when three weeks old they were feeding in a separate trough, set where the sow could not get to it, and when they were ready to wean they were ready to go right on and feed, and I do not think they ever lost a day. The pen was cleaned and bedded regularly, as I think a pig, to do its best, should be kept dry and clean. They also had a yard to run in when it was not stormy. The price of these pigs at six weeks old was taken from what pigs were selling for at that time. Of course, these pigs may be considered too light to be slaughtered, but I am of the opinion that the first one hundred pounds is put on more cheaply than any increase after that. I think that, with an allowance of roots, the cost of feeding could be still further reduced. I do not think you can impress too strongly on the readers of "The Farmer's Advocate" the importance of keeping separate farm accounts. Then a person has the satisfaction of knowing which branches of farming are paying him best. Welland Co., Ont. THOMAS MCCREDIE.

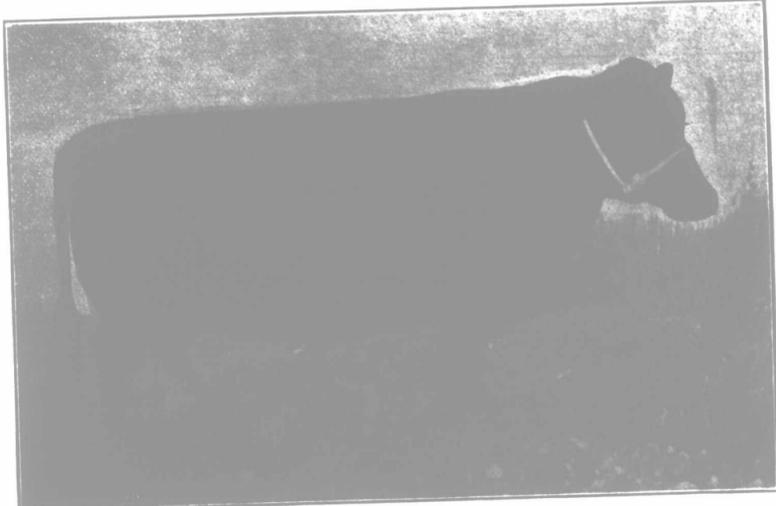
**Sheep Quarantine Regulations.**

Editor "The Farmer's Advocate":

In your editorial of the 18th of February, regarding that injurious-to-trade restriction imposed by the United States Government, there is room for the uninformed reader to suppose that the sheep-breeders as a whole body were in sympathy with the petition you criticized. Kindly permit me to let your readers know that such was not the case. In fact, it would be scarcely possible for the swine-breeders to more strongly condemn the said petition than many of the sheep-breeders did. The latter body do want the restrictions removed, if it can be done by fair means. But they do not want it badly enough to ask for the removal of a safeguard placed for protection of one of our most valuable live-stock industries, in order that our own interests should be advanced at the expense of the other. We know of some who had a copy of the petition sent them for obtaining signatures. Before reading it, the quickly-passing opportunity to obtain a couple of names one evening was seized. Later the document (when read in full) was returned to the sender, and clear-cut language, in full condemnation, was forwarded therewith.

On meeting one another in Toronto, before gathering at the annual meeting and discussing the situation, not half a dozen voices could be heard in approval of the ill-fated document. And the fact of its never being presented to the meeting, and only a passing reference being made to it during the two long sessions, should have been a clear indication to "The Farmer's Advocate" of how the wind blew.

It is a question of honorable citizenship which is at stake; and when it comes to that, the sheep-breeders have no reason, as a body, to lower their heads in shame. We can, with pride,



Elm Park Beauty 3rd —1627—, 94697.

Aberdeen-Angus heifer. Grand champion Angus female, Toronto, 1907, and Edmonton, Dominion Exhibition, Calgary, Brandon and Toronto, 1908. Bred and owned by James Bowman, Guelph, Ont.

floor, and is supported by 4 blocks of cement opposite each partition. In summer-time this opening between sill and floor is left open to let in a draft, and to let slush out in winter it is closed by letting down a flap on the outside. This pen is satisfactory in every way, and if building again I would make very little if any change. Addington Co., Ont. ELMOR JACKSON.

**Best of the Four.**

My husband has been taking your paper and three others, but, owing to extra expense in our family, we felt duty-bound to drop all but one, and, having duly considered the matter, we decided on continuing to take "The Farmer's Advocate" and give up the other three papers. Therefore, you may form some idea of how highly we value each number. MRS. S. T. DOWSON.

point to the doings in the outside world, in the way of advertising our Province and Dominion. And we are not now going to lower our dignity by endorsing the effort to obtain gain for one body by seeking to bring disaster to another.

Victoria Co., Ont. JOHN CAMPBELL.

### Cost of Shropshire Registration.

We are asked to give the cost of registering Shropshire sheep. The Canadian Record for Shropshire sheep is affiliated with the American Shropshire Registry Association. Each animal is recorded in the Canadian Record and in the American Shropshire Record as well, and the National Record Office issues American certificate of registration as well as Canadian certificate. The fees charged for both registrations, if application is sent to Ottawa, is the same as for American registration if the application is sent to the American office. Registration fees are as follows:

**TO MEMBERS.**—For each pedigree recorded before December 1st of the year following the year of birth, 50c.; if recorded after date mentioned, each registration costs \$1.50. Registration of sheep imported from Great Britain, 50c. each, if recorded within one year of date of importation; if recorded after one year, \$1.50 is charged.

**TO NON-MEMBERS.**—\$1.00 for American or Canadian bred sheep, and \$2.00 for imported sheep.

Membership fee is as follows:—To Dominion Sheep-breeders' Association, \$1.00 per year; to American Shropshire Registry Association, \$5.00 life membership.

### Whole Grain for Hogs.

Editor "The Farmer's Advocate":

I take six papers, and find "The Farmer's Advocate" to be the best farm paper. Being situated in the corn belt of Kent Co., Ont., where we produce from 75 to 125 bushels of corn per acre, and 30 bushels of peas, we find hogs to be the best paying proposition. Hogs are very little trouble if grain is fed in its natural state. I do not approve of grinding the grain for hogs. I have been feeding whole grain for ten years, except when experimenting with mixed grain chopped. At present we are feeding 75 hogs on a mixture of oats, peas and corn, with plenty of clean water. Hogs fed in this manner do not pile up when sleeping, and are not affected by the cold. The Berkshire and Tamworth crossed make a very profitable hog.

J. H. W.  
Kent Co., Ont.

## THE FARM.

### What Draws the Lightning.

Editor "The Farmer's Advocate":

In reply to an article in your journal of Feb. 18th, in reference to damage done by lightning, and the matter of protection, I would say it is the duty of every man to give the matter his most careful consideration, as protection against such danger and loss is not an idle question today.

In reading over the Halton Mutual Fire Insurance Company's annual report, we find that, out of fifty-nine claims paid, forty-nine were for damage done by lightning.

In order to protect our homes from danger and loss in a thoroughly scientific manner, it is absolutely necessary that we gain all the knowledge possible about lightning; we should recognize the fact that every effect has a cause, hence we should seek the cause of lightning striking the various objects we see from time to time. I claim it is purely a matter of location, not one of attractive influence on the part of the object struck. Lightning passes on after striking the object to a point beneath the earth's surface, which we will term the point of attraction. Now, there is a cause for that point of attraction existing, not only during electrical storms, but at all times, and I have not the slightest hesitation in saying that springs flowing beneath the earth's surface create a power to attract lightning; and in so far as my experience goes, I have yet to find that building, tree or animal struck that was not situated over a spring. I have recognized the fact for years; therefore, I claim that there are buildings safe without protection, while others, owing to their location, are in danger. These should, by all means, be protected in the best possible manner.

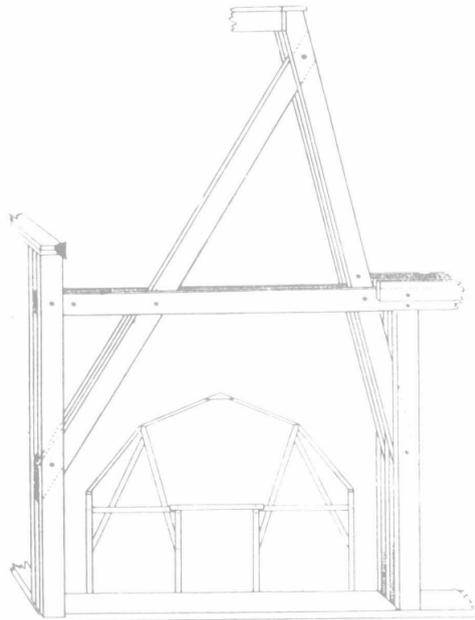
Time will not permit of entering fully into the matter of material best suited for protection, and the manner in which it should be placed, but I trust your readers will become more interested in the subject, as many have suffered great loss through lightning, and I am confident such loss could and would be averted if people fully realized the danger.

NEWTON L. FORSTER

### Another Plank Frame.

Editor "The Farmer's Advocate":

I have been much interested in the different cuts of plank-frame barns which appeared in your valuable paper from time to time, and it appears there are others who are looking for something cheaper than square timber for barn frame. As we have just completed a plank-frame barn this winter, 50 feet by 90 feet, end drive, with hip roof, somewhat different from anything I have noticed in your paper to date, I thought a change would, perhaps, not be out of place, so if you will allow me space, I will endeavor to describe the way the bents are made. You will notice by the cut that we have four posts and a beam connecting them in each bent; outer post consists of two planks 2 x 8 in. x 15 ft. long, with 2-inch space between. Mow beam consists of two planks 2x8x18 ft. long, joined to outer post with a tenon about 3½ feet long, elm, bolted into post and into beam. Inner post made of three planks 2x8x14 ft. long, spaced, extending up into mow beam 4 in., or half way up into mow beam and bolted. Overlay or center beam made of three planks, 2x8x16 feet long, resting on ends of inner post, which forms a lap, with mow beam of two or more feet, according to length of plank, which is also bolted. Purline post, starting at 7 feet from floor, fitting an elm plank to the center plank of inner post, and running it up through mow beam as far as it will reach, bolting it to mow beam. This piece I call a filler. Now, above the beam we used two planks, 2x8x14 feet



Illustrating Plank Frame of Mr. McDowell's Barn.

long, one on either side of filler, and bolted securely. This formed the purline post, except two pieces of plank below the beam, one on either side of filler, and extending into inner post and bolted. Purline brace will finish one bent; purline brace starting in outer post 7 feet from floor, extending through mow beam and on up into purline post about a foot from upper end, bolting at three points—main post, mow beam and purline post. This brace in our frame is about 22 feet long, and as we had nothing longer than 18 feet, we butted a short piece at the bottom between post and beam, and secured it by spiking a plank on each side, fitting it from post to beam. For plates we used same size material; for main-plate spiking, two planks on top of posts, breaking joints. Our bents are 15 feet apart, and we placed a plank every 5 feet as a support to the plate. Purline plate is V or trough shaped, one plank on side of post and one on top, and the ordinary rafters can be used in the ordinary way, which, I think, is one advantage over truss frame in using slings. For bracing endwise we used a long plank sized into post and fastened to sill, three on each side of barn. The bents being well braced in the way they are made need no other bracing. The purline is braced by nailing good inch on the bottom side of rafters, starting at the top of main corner post and extending to top of No. 2 purline; one of these at each corner of building. Girts or ribbing can be nailed on or in to suit the siding. We used the studding and braces of the old barn, crippled between posts and studs, and sided with corrugated iron; strapped the roof with 1½ in. by 5 in., and covered with corrugated iron also. Now, as to cost, you can save about 35 per cent. on material over a light timber frame, and as

to work of framing, one carpenter with three willing helpers, of any kind almost, can build and put up a barn like ours, with seven bents, in six days, ready for the rafters, and I think I would undertake to do it in less time; and as to raising, we raised our frame without any help, with the assistance of a homemade windlass, some ropes and pulleys, with the exception of one truss bent, which we have in our straw mow. We had to call four or five of our neighbors to help us with that, after we had it half way up or more. The bents with the beams are very easy to raise, as they are not top heavy. With the homemade contrivance we had, I could raise one of these bents alone; all I need is someone to connect it when up.

York Co., Ont.

T. McDOWELL.

### Solving the Labor Problem.

Editor "The Farmer's Advocate":

Within the last number of years, farmers in Ontario and the other Eastern Provinces have found great difficulty in getting men to hire for work on the farm, and in some places men could not be had at any price. The opening up and settling of Manitoba, and the other Provinces to the West, in a large measure, are responsible for this unfortunate occurrence, as men prefer, from the great inducements set forth, of the cheap land to be had, and the fortunes accumulated in so short a time, to move West, rather than work under a master and take a hired man's place on a farm in the East.

Farmers' sons, when they become large enough to handle a team, and have got a good education, should be given some department of the farm to look after, and manage as their own, and also the money acquired from the profits obtained from the same, thus encouraging improvements which they may suggest. In this way, we would find them taking an interest in the financial welfare of the home, and it would go far towards retaining them on the farm, and also result in the greater improvement of our live stock and poultry.

The Government's immigration policy is doing good work. Inquiries are made among the farmers where help is wanted, and men are sent out from the motherland to work for them. In most cases these men have made very good workers and desirable citizens, but, unless something is done to retain them with us, they will, in due course, embark for the West, also. One way I would suggest of accomplishing this is (and perhaps it may yet become necessary) to give them a good wage for the first year, and, if he proves satisfactory, agree to share some of your profits with him, also, or induce him to take a share in the stock with you; and, if a married man, get or build him a suitable house to live in; so that he may become interested in the farm, and more contented to live here.

Another way, and one which can be adopted by almost any farmer, is the use of larger and wider-working farm machinery; and, instead of using two-horse implements, which are now employed, use four horses, as, with a little practice, it is just as easy to handle a four-horse team as it is two horses; and one man can do the work of two by this means, and, by neighbors exchanging work during the harvest season, the labor problem can, to a certain extent, be solved.

By the adoption of these three methods, where needed, we farmers in Ontario and the East would be more able to cope with our extensive cultivators to the west of us.

Peterboro Co., Ont.

### Vitality of Seed.

I will close, said G. Michaud, in his paper read before the Canadian Seed-growers' Association, last month, by reiterating the necessity of testing each and every lot of seeds before sowing, because of the already mentioned strong individuality of the seed. Should every kernel of a handful of any kind of seed be of the same size, the same specific weight, even contain the same number of similar cells, and have the same physical and chemical composition, every seed would not necessarily have the same vital energy, the same affinity for certain chemicals, the same resistance against certain specific diseases, or against any causes affecting its vitality and vital energy.

#### TO SECURE GOOD SEED.

Harvest it when well matured.

Allow it to dry naturally, or dry it artificially, before storing.

Prevent mechanical injury by handling it as little and as carefully as possible.

Store it in a cool, dry place.

Be very careful in treating it with chemicals or with hot water.

Always test it before sowing, in order to determine the proper amount to use.

Do not rely too much on its external appearance.

**Save Algoma's Timber.**

Editor "The Farmer's Advocate":

I have read with great interest the different articles in your valuable paper on reforestry, and I was especially interested while reading that of W. J. Westington, in your issue of Feb. 11th, where he mentions the efforts being put forth to reforest parts of Hamilton and Haldimand Townships, and where he speaks of the trout brooks, along the banks of which, thirty years ago (being then more or less timbered), I wandered, a bare-footed boy, with my hook and line, catching the speckled trout. My father helped to remove the timber from those barren hillsides of which Mr. Westington speaks, and it seems but yesterday that I heard him speak of cutting and hauling ties to build the G. T. R., which runs along Lake Ontario, and how he helped to clear up his farm, and that, going to logging-bees when he was a young man, which means that this very section was mostly well timbered seventy years ago, and now it seems efforts are being made to restore nature.

I am now living on St. Joseph Island, which contains about 90,000 acres, 75 per cent of which is timbered land, and there are still thousands of acres of hard maple, birch, elm and basswood which have not been culled. Why not make an effort to save Algoma's timber? L. O. Armstrong, Colonization Agent for the C. P. R., addressing a meeting in the Town Hall, Jocelyn Tp., St. Joseph Island, told us we were destroying our hardwood, cutting the best trees for firewood. "Saving 25 cents in labor, and destroying \$5.00 worth of timber," and that was the first voice (save "The Farmer's Advocate") I have heard in Algoma interceding for the maple. Our maple is being culled, and the clear stuff, including more or less bird's-eye, is being hauled eight miles for mere wages, the timber itself, up to the present time, being considered valueless. This culling, of course, encourages fire, from which we had a visit last fall. If the people of Algoma realized that what they are printing was true, they, I am sure, would call a halt; but, unfortunately, very few of them take "The Farmer's Advocate." There is an old saying, that an ounce of prevention is worth a pound of cure, and I think the Government would be wise in circulating literature among the settlers in timbered districts, educating them to leave the young trees and guard against fires, and especially to stop useless destruction, which I have witnessed all around me in Algoma, and which has cost me very little thought up till the time I began studying the matter in the columns of "The Farmer's Advocate." I do not wish to take up any more space, as I am aware (as a neighbor said to me one day after I had given him a copy of your paper to read) that "It is all high-class reading in 'The Farmer's Advocate,'" and mostly written by more able correspondents than I. But I have decided that we have in the timber in Algoma an asset worth protecting, and I hope to have your assistance in the matter.

St. Joseph Island, Ont. E. F. CROWDER.

**Government Bounty on Sparrows.**

Editor "The Farmer's Advocate":

Allow me a little space in your valuable paper, as I have something to say in regard to doing away with the English sparrow. The sparrow is not a useful bird, neither is it noted for its beautiful song. Everybody dislikes the single "chirp," "chirp," they have during the long summer months. They are real enemies of the other birds, such as the gray-bird, swallow, canary, humming-bird, bluejay, etc., because of their destruction of the eggs and nests of these useful birds. They are a menace to the farmers, because of their carrying weed seeds from place to place and dropping them where they will grow. The sparrow will not be missed because of its eating grubs. The other birds, especially the gray-bird, swallow and canary, would certainly become more numerous, and they would eat the grubs. More than that, how much sweeter and more cheering it would be to hear their harmonious songs pouring forth?

There were no sparrows in Canada or the United States until the big boats came across from England about fifty years ago. No doubt God created these lively birds, but that is no reason why we cannot destroy them. It would take some time to eradicate them completely, but they can be greatly and easily thinned out if the Government would put a bounty on them, and do something in the way of destroying their nests in the towns and cities during the hatching time in the spring. The farmers could also aid greatly in the work, and should do so by shutting them out of the barns during the cold winter months, especially when it is zero weather. The farmers should also bat the birds out of the straw stacks at night before going to bed. The shotgun is a useful article to have on the farm, and should be used quite frequently on the sparrows and crows. Beam Co., Ont. FARMER.

**Time to Get Seeds Ready.**

Now is the time that farmers should be getting their seed grain ready for spring seeding.

This is a more important problem than many farmers realize, else more would have all this work done before the rush of the seeding time. In the two or three weeks which are most favorable for seeding, there is no time to lose in preparing the seed-bed and hiding away the seeds in the soil so that the best possible results may follow.

The yields of all the spring grains decrease in yield per acre in proportion to the lateness of seeding after a certain time.

Where possible, it would be well if farmers could get their grain cleaned with a power mill. There are quite a number of places where this could be done at a cost of possibly 5 cents per bushel. Here is a line for co-operation on the part of farmers. They could club together and instal a power fanning mill at some convenient

are quite pure. In this respect, both the wholesale cleaned seed, and the best local lots set aside by local dealers, are freer from weed seeds than usual.

As a rule, the best seed available in the trade goes out first, so that there is plenty of time yet for the presence of more or less impure seeds being offered in the trade.

The fear is expressed on all sides that farmers are trading more than usual among themselves. It is a great mistake to do this with low-grade seeds. Ribgrass or buckhorn is increased in this way. In small lots, a practical way to separate ribgrass from red clover is to moisten all the seed with water, and then mix in some dry sawdust, which will adhere to the sticky coat of the ribgrass, and may be retained on a screen through which the red clover will pass easily.

With proper varieties, well-selected seed, fine seed-bed, productive, well-drained soil, and pure, vital seed, there should be a marked increase of the cereal crops throughout the Province.

T. G. RAYNOR.

**Stable Absorbents.**

A serious waste of fertility occurs on many farms through volatilization of ammonia in the stables. This could be largely avoided, and the value of the manure applied to the land considerably increased by the use either of gypsum (commonly called land plaster) or ground phosphate rock. Land plaster is one of the best stable absorbents. Sprinkled in the gutter, or scattered over the manure heap from time to time, it will hinder the volatilization of ammonium carbonate, and keep the stables sweet. Gypsum consists of sulphate of calcium, and, as a direct fertilizer, is of very limited value. It is most suitable for crops such as clover and turnips, which require a considerable amount of sulphur. On virgin soils it frequently has a wonderful effect upon clover, but as time passes the effect produced on this crop appears to diminish. Its best use, however, is for the retention of ammonia in stables. It may be obtained through fertilizer dealers advertising in these columns, at a cash price for ton lots and over, in bags, of \$6.75, ex mill, Caledonia, Ont. Another absorbent, perhaps even more to be recommended, is finely-ground, untreated phosphate rock, carrying about 33 per cent. of phosphoric acid. This will also retain ammonia and keep the stables sweet, while, in addition, it adds phosphorus to barnyard manure. As phosphorus is an essential element of plant food, and one that is constantly depleted by our whole system of farming, whether grain-growing or the raising of stock for sale, the advantage of thus supplementing the proportion of phosphorus in the manure becomes apparent. Ordinarily, this raw, ground phosphate-rock is a very tardily available fertilizer, and therefore slow in its action, but, mixed with barnyard manure, the fermentation forms certain acids that set free or render available the phosphorus in the rock phosphate. Thus, there is a double benefit, the phosphate rock adding to the value of the manure by reducing the waste of ammonia, and the manure tending to render the phosphate more quickly available. The quantity recommended is a pint to a cow in the gutter twice daily, or 100 pounds to the ton when mixed with the manure in the pile. The former is the better way to use it. Raw, ground phosphate rock may be obtained for about \$14 per ton, f. o. b. at the dealer's wholesale warehouse. Consult our advertisers for quotations and further particulars.

**The Fertilizer Bill.**

Editor "The Farmer's Advocate":

The commercial fertilizer business is, in Canada, undoubtedly in its infancy, and, like many other infants, is often misunderstood. I have frequently seen remarks made in the columns of agricultural papers, plainly showing distrust of the honesty of the commercial-fertilizer manufacturer. But those same manufacturers have a record of which they might be proud. To have the Governmental analytical chemist state that, of some samples, by far the larger majority are above the guarantee, and only rarely is one found that actually falls below the leeway of one per cent. allowed by the Act, is certainly high commendation.

The remarks of Prof. J. F. Snell, in your issue of February 11th, as to the proposed fertilizer law, are interesting and practical.

The provision for a payment of \$20 for the registration of a standard brand is, as Prof. Snell says, likely to operate both directly and indirectly to the disadvantage of the consumers. The fertilizer companies are eager to foster any experiments which may be made by their customers, and this fee would act as a direct bar to such experiments.

Prof. Snell's suggestion that the standard number remain the same for a particular brand from year to year, is excellent. I have already suggested this, with the addition of the date of manufacture.

The bill introduced last year forbade the dealer



J. O. Duke, Ruthven, Ont.  
President Ontario Corn-growers' Association, recently organized at Essex, Ont.



A. McKenney, B.S.A., Essex, Ont.  
Secretary Ontario Corn-growers' Association.

point for all those concerned. A power mill will, with one cleaning, take out about 25 per cent. as it comes from the cleaner, of chaff, light stuff, etc. With the ordinary mill, it would be required to put it through three or four times to reduce four bushels from the bin to three bushels when ready for sowing.

The selection of large, plump seed means increased yields of grain per acre. If a good fanning-mill selection were made all over the country, I believe it would effect a yield which would be five bushels per acre greater than the average, and which, in most cases, would mean profit. On the approximately five million acres in field crops in Ontario it would spell an increase of, say, 25,000,000 bushels of grain. Such an increase would pay handsomely for the time involved in preparing such seeds.

Not only should there be a good selection of large, plump seed, but, as far as possible, the seed should be pure. I am glad to be able to report that, so far as inspection work has gone this year, the lots of small seeds offered in the trade

to sell any fertilizer manufactured the previous year. If he were so unfortunate as to carry any over, what would he do with it? Throw it out, and thus lose possible \$200 or so of perfectly good fertilizer, or in some way evade or deliberately break the law. The provision, as it stood, was absurd, and, I presume, will not appear in the next act.

Prof. Snell, in seeking to make a sufficient charge for registering the various brands, forgets that the 10 per cent. duty collected on foreign fertilizers, and the higher duties collected on some

would not have to draw the sap any farther than necessary.

I built 12 feet x 24 feet (which is large enough for any machine under 14 feet long) and 6-ft. walls. I had a large door in the end, where the fireplace is, and a small door on the south side; also a small window in the south side. Then I made a ventilator 2 ft. 6 in. wide and 2 ft. high in the peak of the roof, just 12 ft. over the machine. There was a stone under each corner, and the rest open, so that the draft from beneath would take the steam out. Only a few boards

Now, as to how I fixed my storage tanks: I got two 10-barrel tanks, and put one with the end about a foot inside of the side of the camp, and the other outside, and run the same way that camp does, and connected the two with a hose. The end that is inside of the camp is just about one inch higher than the mouth of the regulator, so that the sap can flow from bottom of tank to the regulator, then the outer end is about 1½ inches higher, again, and the other raised about the same slant, so that sap will all run out.

I built a covering over each tank, leaving room to get in from each end to wash them out, and to allow plenty of fresh air. Then I made a square stand, by using 12-ft. cedar rails, so that the top would be about a foot higher than the bottom of the tanks; and a driveway on each side so as to drive up on this with my sap, and, with a spout to the bottom of my gathering tank, the sap will run out into the storage tank, thus doing away with the labor and saving two men at that place, and doing the work faster.

Those who have a sidehill in their bush should build at the bottom, and make a driveway on the sidehill, to save my trouble. The boiling camp should be one building, and the wood-shed outside. If the wood is piled in the same house, it will be all wet from the steam. H. A. BUCK.  
Frontenac Co., Ont.

### Steam Plowing in Ontario.

Will the steam plow become popular on Eastern farms? The opinion seems to have gained hold that power outfits for plowing are adapted only to large level areas, such as are found on the prairies of the West. While it is true that the expenses connected with operation are decreased in proportion to the size of the fields, it is worth while to study the actual cost and consider what minimum in total area to be plowed and in size of fields, leaves plowing by steam a paying proposition.

The scarcity of power outfits in Ontario makes it difficult to obtain many statements of details. Figures given by A. Leitch, B.S.A., Farm Manager on Donlands Farm, York County, Ont., in connection with the running of an engine gang plow are:

Labor—	
3 men, 12 days, at \$2.00.....	\$ 72.00
1 team (drawing water), 12 days.....	24.00
Coal, 11½ tons, at \$4.25 .....	48.88
Repairs .....	14.85
Blacksmith, 1½ days, at \$2.50.....	3.75
Depreciation in plow .....	35.00
Depreciation in engine .....	12.00
Interest on investment in plow .....	40.00
Proportion interest on engine .....	12.00
Total .....	\$272.48
Cost per acre .....	\$ 2.39
Cost per acre by team work, about .....	\$ 3.50

To some this statement of \$3.50 for plowing an acre may seem rather high. On second thought, however, when all expenses connected with boarding man and team, and with wear and tear of plow and harness, are considered, it will be admitted that on the average farm of Eastern Canada the figures are not beyond the limit. On light soils, where a team can turn two acres per day, of course the cost would be reduced. On the same soil, also, the cost of plowing by steam power would be lower.

Regarding the use of steam plows, Mr. Leitch says: "On large farms where large fields are the rule, the steam plow, in capable hands, has before it a great future as a labor-saving implement. Another advantage it has over the ordinary plow is that on account of its great weight we were able to plow the past season heavy clay land that, on account of the dry weather, it was impossible to touch with the walking plow. This, of course, necessitated the continual sharpening of the shares, but even that added expense did not materially affect the cost per acre."

"We used a 26 horse-power Abell engine and a ten-furrow Cockshutt gang plow. This past season, however, we used but eight of the plows, as some of our land was so rolling it was almost impossible for the engine to pull it up the hills, particularly as the ground was unusually dry and hard. Each plow in the gang turns a furrow of fourteen inches, the share cutting the whole width of the furrow. The plows can be regulated to any depth up to six inches by the raising levers, which can also be used in adjusting the plows to unevenness in the ground."

"Our fields range in size from 40 acres down to 12 acres, but it is not practicable to use this kind of plow on a field less than 50 to 60 rods in length, as it is necessary to leave a strip of from 1½ to 2 rods at each end for turning on. This, of course, can practically be finished with the steam plow, but as it would leave the corners of the field untouched, it makes a better job to finish with the walking plow."

"In the hands of a capable driver the lands can be finished completely with the steam plow."



Gathering the Juice of the Maple.

of the materials (such as bags, machinery, oil, coal, sulphuric acid, acid phosphate, etc., on which the duties average about 20 per cent.), is more than sufficient to pay all the cost of the fertilizer analytical branch of the department.

Indeed, the raising of the duty on American fertilizers to, say, 15 per cent. might tend to actually lower the price to Canadian consumers. It would encourage the building of a number of factories in Canada, whose competition would tend to reduce prices, which are now regulated almost entirely by the large American trusts.

And one word to the farmers: Use all the stable manure you have, and more too, if possible, and also commercial fertilizers. There are at least two crops that it is impossible to raise successfully without commercial fertilizers, and they are apples and potatoes.

Furthermore, the highest grade is usually the cheapest, relatively speaking.

Hants Co., N. S. JOHN W. BLANCHARD.

### Satisfactory Sugar Camp.

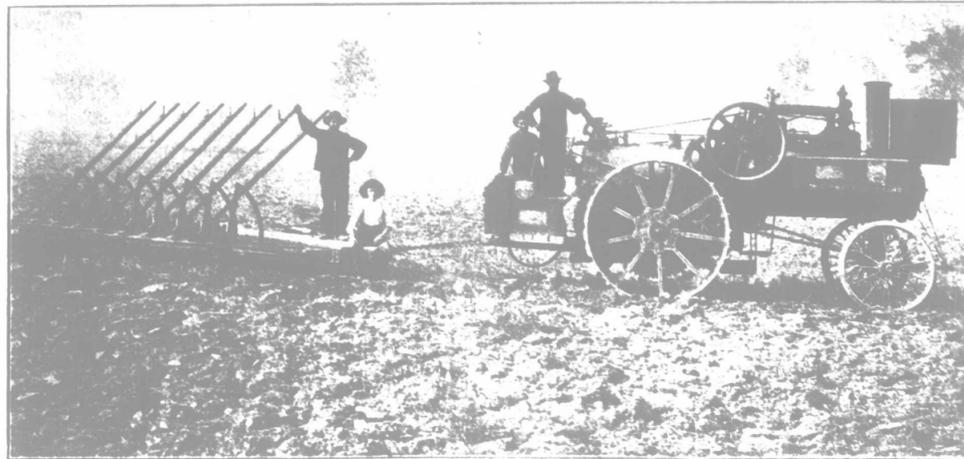
Editor "The Farmer's Advocate":

I built a sugar camp in 1904, when the snow was about four or five feet deep. I shovelled the snow clear from the ground a little larger than I wanted my camp, and built on the level of a high place about the center of the bush, so that I

were placed for standing on by the side of the machine.

I had the machine placed as low as possible, and close to the north side, leaving room to pass between it and the wall. Then, outside, on the north, I had my storage tank placed on a couple of horses, made out of 2 in. x 4 in. scantling, and covered over with a few boards, just high enough for a rubber hose to carry the sap to the regulator on the evaporator. I had to lift the sap up to the storage tank from my gathering tank, which required two men.

Now, if you can imagine what my old camp was like—and it was very good to begin with—I will try to tell you what my new one is like: It is the old one, in the old place, but I raised it up, built a wall under it, raised the machine, put a cement floor in front of the fireplace and under the ash pit; then raised the machine three bricks from the cement, or six inches, so as to make a good ash pit and a good draft; left an ash door in the brick wall, under the damper, and built a brick wall around under the furnace. Then I put in a floor of matched lumber, so as to make the draft all above, because a draft from down low, or under the house, did not take the steam all out. Made the ventilator full length of camp, for in the end that had no ventilator the steam would gather and make everything wet, and put two large windows in the south side, so as to have more light.



Steam Plowing on Donlands Farm.

though on account of the more or less unwieldy nature of the outfit there is a likelihood of a small wedge being left at each end of the land.

"We make a practice of striking out lands with the walking plow about every ten or twelve rods, which is about as small sized a land as convenient.

"I might say, in conclusion, that we are very well satisfied with the outfit, not only with the quality of work done, but in the decreased cost of the plowing over the ordinary method."

**Barley Centers.**

As a means for the improvement of barley culture in Canada, A. P. McVannel suggested to the Canadian Seed-growers' Convention the desirability of having but a single variety grown in each locality. At present, almost every section has a number of varieties, and these are mixed at the elevators or in shipping. The Experiment Station of the University of Wisconsin, he stated, has adopted the policy of breeding and testing pure races of barley, and growing but a single variety in each district. These districts are called barley centers. Each center or county grows but one kind of barley, and the maltsters of that and other States are said to be willing to pay a higher price for Wisconsin barley on that account.

**THE DAIRY.**

**Stop Churning Losses.**

Of the many operations in the handling of milk or cream for buttermaking, there are those in which a loss of butter may occur through one reason or another, but in the average creamery the most serious losses are apt to occur in the buttermilk.

Naturally, the essentials to secure an exhaustive churning are many, and there is no rule that will apply equally to all seasons, and to all creameries. However, the general principles favorable to exhaustive churning are based upon similar conditions, even if they are arrived at under different circumstances. The first factor to be considered in connection with buttermilk losses is the richness of the cream. Just how wide the range may be in order to secure exhaustive churning, will depend to some extent upon the quality and acidity of the cream, as well as the ability of the maker. As a rule, cream testing 25 to 35 per cent. will churn in reasonable time, at a sufficiently low temperature to prevent serious loss in the buttermilk. While these figures only represent an average with a range of 10 per cent. between them, there is no reason why cream testing either limit should not churn out exhaustively; and, whereas beyond each limit it is quite possible, under favorable conditions, to get an exhaustive churning, yet the chances are more remote the further the test varies from 30 per cent., especially the lower it tests. The time occupied in churning will be found to be closely related to the exhaustiveness of the churning. Cream that churns to well-defined grains the size of wheat kernels in from 30 to 40 minutes, or, to be more exact, in 35 minutes, will have a very small loss in the buttermilk.

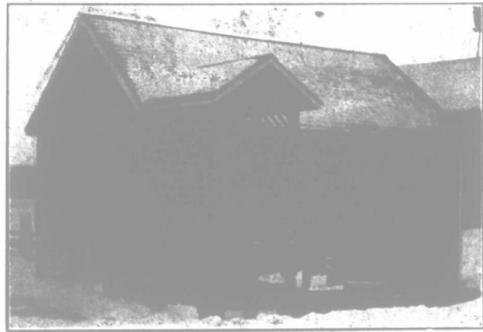
The uniformity of the cream is a matter of great importance. An exhaustive churning cannot be expected from a mixture of sweet and sour cream, especially when the mixing is done just prior to churning; but if the mixture be made in time to equalize the temperature of the fat in the different batches, and to allow it to stand at a low temperature for several hours before churning, then, any danger of loss in the buttermilk from this source is overcome. Good results can scarcely be got from cream that has not been stirred thoroughly in the process of ripening, in order to insure uniform lactic-acid development. While acidity may not be considered by some an essential of exhaustive churning, since sweet cream can be churned without abnormal loss, it is an important factor in increasing the churnability of cream, particularly in the case of thin cream, or late in the season, when the fat globules are smaller. Losses may also be looked for if a uniform churning temperature be adhered to, in spite of variation in the acidity of the cream when put into the churn.

Pasteurization has considerable effect on the churnability of cream. It has been found that when thin and very sour cream has been pasteurized at a temperature as high as 165 degrees F., the milk coagulates and becomes insoluble, and, some of the fat being enclosed in the little lumps of curd, it is carried off in the buttermilk. On the other hand, pasteurization has no appreciable effect upon the churnability of sweet cream, always provided that it be adequately cooled for a sufficient length of time before churning, in order to thoroughly restore the solidity of the fat globules. One of the prime essentials of exhaustive churning is proper temperature. Temperatures must necessarily vary according to the richness of the cream and the season of the year. It is of utmost importance to get the fat down

to the same temperature as the serum by prolonged holding at churning temperature, the need of this being greatest when cream has been pasteurized or ripened at a high temperature. In connection with this factor, it is necessary to cool the churn before running the cream into it, so as to prevent the temperature of the cream rising too high after churning has commenced. Very often, when a small quantity of cream is churned, difficulty is experienced in gathering the butter, particularly if the cream be very thin or very thick. An overloaded churn is also bound to result in abnormal fat losses. In the early part of the summer, the churn may be filled rather less than half, but, as a general thing, during the greater part of the year, one-third full is productive of best results. There is always a loss if the buttermilk be drawn off before the granules are large enough, and overchurned butter is also a cause of high-testing buttermilk.

Other essentials of exhaustive churning are of a mechanical nature, such as the correct con-

struction of the churn, and the maintenance of speed throughout the churning from start to finish, and especially when the cream breaks and the butter granules begin to adhere and separate from the buttermilk. A square churn provides sufficient concussion when run at a moderate rate of speed, and the same applies to barrel churns which revolve end over end, but circular or cylindrical churns must either run at a higher rate of speed, or be provided with internal arrangements, such as dashers, to increase the concussion. In the case of combined churns, concussion at relatively low speed is provided by means of the butter-working mechanism within the churn.



Combined Ice-house and Milk Stand.

On farm of J. R. Anderson, Prince Edward Co., Ont.

A churn of ample capacity for any possible contingency is always necessary; it is much better to have one too large than too small. These various points connected with getting an exhaustive churning, avail but little unless the buttermilk be tested daily. This is a very small matter, and takes not more than five minutes to do, but correct sampling is required, in order to obtain a representative test of the whole churning. The best plan is to stir the buttermilk in the vat thoroughly after it is all out of the churn, and then dip the sample out with a dipper. To estimate the total daily loss, a good plan is to mark lines on the inside of the vat at the level of each hundred pounds of buttermilk, which facilitates

the calculation. If the test is kept down to .1 per cent., there is no reason to reproach oneself.

H. WESTON PARRY.

**Ice Used in Prince Edward County.**

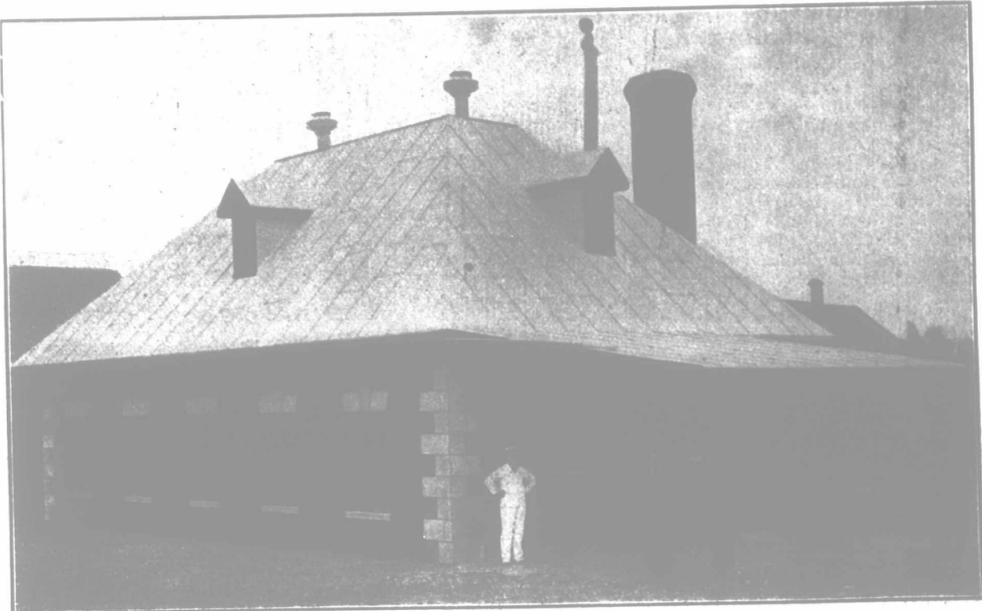
Efforts made by dairy enthusiasts in Prince Edward County, Ont., to lead the way in the production and marketing of dairy products of high quality have resulted in the use of large quantities of ice each season. On farm and in factory low temperatures are considered essential. Quite a number of dairy farmers put away sufficient supplies of ice to last throughout the summer, so that the milk can be cooled and delivered at the factory in fit condition for the manufacture of number one cheese. The factory managements, in turn, equip their factories with modern cool-curing rooms, and thus are enabled to hold the product until it is in condition for shipping, or until the market is satisfactory. That it pays to make this liberal use of ice is shown by the rapid increase in number of farmers and factories providing the necessary supply and equipment.

The popularity of cool-curing is best demonstrated by the fact that in Ameliasburg Township there are five first-class factories, each of which is fitted out with ice chambers and cool-curing rooms. One of the best of these is that of the Mountain View Cheese and Butter Association. In 1873 the manufacture of cheese was started. In 1903 the old factory was reconstructed and built on modern lines. Concrete walls and galvanized roofing contain a make room 30x44 feet; a press room, 20x30 feet; an ice box, 16x30 feet, and a cool-curing room, 30x30 feet. The make room is large enough for five 7,000-pound vats, and it is equipped for skimming whey. During the season of 1908, eight months' operations gave about 180,000 pounds of cheese.

The patrons throughout the county have been so impressed with the advisability of cooling the milk as soon as possible after it comes from the cow that ice houses are very common. In constructing houses for ice-storage, care has been taken to reduce labor to a minimum, by having the building located adjoining the milk stand. Jas. R. Anderson, Treasurer of the Eastern Ontario Dairymen's Association, has facilities for storing 2,500 or 3,000 pounds of milk at a time, and can maintain a temperature of 45° or 50° in the refrigerator room.

Dealing with his ice house and milk stand, and the advantages of cooling the milk, Mr. Anderson writes:

"In our building we have a refrigerator in one end of the stand, and have no trouble in keeping the temperature down to 45° or 50°. We can store thirty hundred of milk if necessary. We have put twenty-five hundred on the milk wagon on a Monday morning, all in first-class condition. The building is twenty-one feet by sixteen feet. Five feet off for the stand and refrigerator leaves the part for ice 16x16 feet. We consider we could not handle the amount of milk we have without ice. When milk is properly cooled the cheesemaker is always pleased with it, and the patron has no trouble about milk being sent home. In Mountain View factory nearly all the patrons put in ice, and if the patrons of the different factories would cool their milk properly we would realize at the least three dollars a standard in



Mountain View Cheese Factory.

Thoroughly up-to-date and equipped with cool-curing room.

the price, and equally as much in the average, which would mean at the least calculation six dollars for every thirty hundred of milk more than we would get without cooling it down properly."

## GARDEN & ORCHARD

### Keeping Quality and Cultural Methods.

Editor "The Farmer's Advocate":

The question of keeping qualities of apples grown in different districts has caused considerable discussion since 1906. Up to that year, there had been very little attention given to scientific apple culture in Ontario. Trees of all varieties had been set in all the apple districts of Ontario. Very little spraying, fertilizing or cultivating had been done prior to that time, all of which have a tendency to lengthen the ripening period. Localities vary so much that it would be impossible to draw a geographical line for any distance, and have the same conditions by the same culture.

The time has come when we find that, if we want our orchards to pay well, we must fertilize and spray. This will, I consider, apply to all localities. Pruning will hasten maturity, and cultivation will lengthen maturity; therefore, we will have to study our conditions and our seasons, and cultivate accordingly.

Norfolk County is exceptionally well situated for the growing and maturing of the King, Snow, Baldwin and Northern Spy, for growers who spray, prune, fertilize and cultivate their orchards. Care, however, must be exercised in cultivating. If the season is dry, cultivation should be extended to the 15th of July; and if wet, only to the 1st of July. Under this management, our picking season is from October 1st to October 20th, and many years we get a sharp freeze about the 23rd of October.

Many of our orchards in this county have not been sprayed or cultivated. Quite a quantity of poor fruit has been packed and shipped out of these orchards during the past few years, to the injury of the apple industry in our county and the Dominion of Canada. This can be rectified by the enforcement of the Inspection and Sales Act, by having a county inspector for the period of three months, at the expense of about \$400 per season.

Norfolk Co., Ont.

[The arrival of a bushel box of choice Northern Spies, grown in Norfolk County, and sent by Mr. Johnson on behalf of the Norfolk Fruit-growers' Association to the office of "The Farmer's Advocate," completely disposed of the claim that apples grown in that county possess superior "keeping" qualities, as every apple was "gone" within very few hours. It was clearly demonstrated, however, that this variety will remain sound at least until the end of February. There was not a spot to be found, and the flavor was delicious. A lesson in modern apple-packing also was furnished. The apples were wrapped in paper, and neatly packed in the standard box, 20 x 11 x 10 inches. Mr. Johnson states that there has been practically no decay in Spies kept in common storage. The presentation furnished substantial proof that is greatly appreciated by "The Farmer's Advocate."—Editor.]

### Keeping Quality Improved by Cooling.

Editor "The Farmer's Advocate":

With regard to the keeping qualities of apples grown in different localities, we find that, under the usual conditions which prevail in most districts at the time of packing, the northern-grown apple has advantages which the same varieties grown in the southern counties do not have. This was demonstrated last year, when we had an extremely hot, dry summer and fall, and apples of the earlier kinds, such as Greenings, matured very much earlier than usual. Given proper cold-storage facilities, where apples can be cooled as soon as they are picked, this difference is removed. We have satisfied ourselves on this score, and a gentleman, from whom we bought a number of apples last fall, has the same experience.

Apple-growing in the Niagara Peninsula is being reduced yearly. Many of those having orchards on land suitable for other fruits are removing the apple trees, in favor of other kinds of fruit, but, in my opinion, a cold-storage equipment in connection with the packing of apples, and particularly in the southern counties, is most desirable. It enables the packer to keep his Greenings and other early kinds in good shape until the later varieties, such as Spies, Baldwins, etc., come in, and to ship out all under the same conditions.

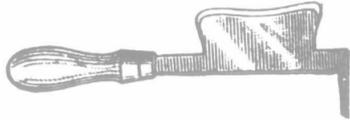
It is not necessary to go in for an expensive mechanical plant, but one cooled by ice can be very easily operated, and at a very small cost.

Wentworth Co., Ont.

E. D. SMITH.

### Top Grafting Fruit Trees.

A reader in Middlesex County, Ont., who wishes to have more desirable varieties in his orchard, writes for information regarding how and when to graft, and the composition of grafting-wax. Since there are many orchards in all parts of the Province that could be made more profitable by judicious top-grafting to suitable varieties, we give the important details. The method adopted and the time of year will have to be governed by the size of the limb and the kind of fruit. Such work should be done on



Chisel for Cleft Grafting, with claw for holding cleft open to insert scions.

plum trees and cherry trees early in the spring, before a start is made in wood growth or bud development. With the apple and pear, it is possible to defer the work until late in May, or even early in June.

#### GRAFTING EQUIPMENT.

The necessities for work are: (1) A sharp, fine-tooth pruning saw, with which to make a clean cut of the limbs to be grafted; (2) a graft-



Cleft Graft completed and thoroughly waxed.



Single scion for Cleft Grafting, and pair of scions in place.

ing chisel, or, if this cannot be had, a common chisel, or even a large pruning knife, with which to split and hold open the limb for the insertion of the scion; (3) a small mallet; (4) a ball of grafting wax; and (5) a small bundle of scions.

Following is one of the several recipes for making grafting wax: Resin, 4 parts by weight; Beeswax, 2 parts; tallow, rendered, 1 part. Melt together, and pour into a pail of cold water; then grease the hands and pull until it is nearly white.



Whip Grafting Plum or Cherry.—D—Splice made and bevelled scion inserted. A—Splice graft wound with string. B—Splice graft waxed. C—Splice graft bound with cloth.

Scions are small cuttings from last season's growth, and should be prepared while the wood is still dormant, some time previous to the date the grafting is to be done. They should be tied in bundles, and packed in earth or fresh sawdust until needed. By cutting scions only from heavy-bearing trees of the variety or varieties wanted, and looking to quality of fruit borne, and desirable characteristics, much can be done to maintain a high standard in the fruit produced from the grafts. Special precautions must be taken not to mistake old wood for new. The previous season's growth consists of that part of the twig

extending from the tip back to the first ring or swelling. It may be long or short, depending on the location on the tree, soil and weather conditions, age of tree, and variety.

#### NECESSARY PRECAUTIONS.

Skill is required in two things: First, in making the small, wedge-shaped cut of the scion. This should be done with a sharp knife, by a single drawing cut for each side, so as to make a perfect wedge, usually leaving the one side a little thicker than the other, to insure close contact. Then, while the split wood is held apart with the chisel, the two scions are put in place. In the second place, skill is required in so placing the scion in the cut that the inner bark of stock and scion may meet squarely, and make a perfect union. When the scions are in place, cover every portion of the cut surface of scion and limb with grafting wax, so as to thoroughly exclude rain and the drying effects of the atmosphere. Two scions are not really necessary at each cut, but it is very little more trouble to insert two than one, and thereby two chances of success are afforded, while, if both live, it is a simple matter to cut off one, leaving its stub to help grow over and cover the wound. On large limbs several scions are inserted, the bark only being slit. No wax is required. After the scions are placed, they are held securely by means of string around the sawn-off limb, and stiff manilla paper is left projecting about half an inch beyond the end. The basin thus formed can be filled with mud to afford protection to the cut surface until the wound heals.

In renewing an old tree, the grafter should not attempt to complete the work in less than two seasons, a few of the smaller limbs being grafted each year, thus gradually transforming the whole top. As a rule, limbs about two inches in diameter are best for top-working, because the wounds are quickly healed.

Grafting the apple or pear may be done by any farmer or fruit-grower who is at all handy in the use of tools. In top-grafting cherry and plum trees, greater care must be exercised, as the wood does not unite quite as readily. For larger limbs, cleft-grafting is preferred. The method is the same as with apple and pear trees. On branches less than an inch in diameter, whip-grafting is the usual practice. A splice is made on the limb to be grafted, and a scion, bevelled on one side, only inserted. After tying securely with a string, the wounds are carefully waxed, and then bound over with muslin or other cloth to keep off the hot sun.

### Planting Sugar Maples.

I would like to get your opinion on a point in regard to planting maples (sugar). I can get these trees free in all sizes, in a bush near-by, from which the stock has been shut for some ten years. On the other hand, I can get them from a nursery, at 30 cents each, transplanted. Now, the question is, would the increased rate of growth of the nursery trees make it worth while to purchase them?

I notice nursery maples planted along the streets in London, and they seem to grow much faster than ordinary seedling trees from the woods. Whether it is due to better root system or better care, or both, does not appear.

I have forty or fifty of these small trees, 6 to 8 feet high, dug from the woods two years ago, and planted in a block, with the intention of finally transplanting them again. Of course, they will have some fibrous roots. What is your opinion of these latter, as compared with nursery trees?

My main object is rapidity of growth, as I want them for the sap. J. R. C.

Middlesex Co., Ont.

Ans.—There can be no doubt about it that well-grown nursery trees make more rapid growth the first few years than the same kind of trees taken from the bush. This is largely due to the better root development of the nursery trees, brought about by more or less frequent transplanting in the nursery. The plan you have adopted, however, of taking young trees from the bush and transplanting them into nursery rows, would give you trees more like those grown in the nursery. If the trees you have so transplanted are vigorous and thrifty, I would have no hesitation in recommending their use, not only because of saving in cost, but because they may in time make quite as good growth as the nursery-grown trees. One thing which has to be taken into consideration in taking trees from the woods is that there is the likelihood of getting mixed lots of hard and soft maples, whereas those grown from seed in the nursery are more likely to be all of one kind. However, one who is able to distinguish the difference in young trees should have no difficulty in this respect. Most of the maples grown about London are soft maples, and the soil there seems to be particularly adapted to them, hence they make extremely rapid growth, but are not so long-lived as hard maples, or trees of more moderate growth.

O. A. C.

H. L. HUTT.

**Test Garden Seeds.**

Perhaps in no other line of farm work is there so great difficulty in securing a sound basis for a start as in that of producing garden crops. Any man can purchase high-grade seed for wheat, oats, barley, corn, or other staple farm crops. Clovers and grass seeds may contain noxious weed seeds, but, as a rule, the sample is of comparatively high germination percentage, and of the proper variety. In garden crops, it is different. Not only are weed seeds likely to be found in many of them, but also is the number of germinable seeds frequently found to be extremely low. Of the two defects, the latter is the most serious. Gardeners can keep down weeds. Lack of vitality, and consequent thin stand, however, can very seldom be overcome in time to produce the desired crop that season.

The fact that gardeners so frequently are supplied with seed that is of low quality can be credited to foreign production and high prices. The man who grew the seed may have sent the best he could grow, but it is possible that it might have deteriorated in the storage given. On account of it having been brought from distant points, and necessarily retailing at high prices, the shrewd seedsman, rather than lose what seed he has left over after a season's business, decides to mix the old and deteriorated seed with the fresh importation.

The grower, to protect himself, tries to deal only with reliable seedsmen. But, in order to know how thick to sow his seed, he must know what percentage of each lot will readily sprout and give a strong plant, under normal conditions. His only resort is to test for himself. This can be done easily in the kitchen by a plate and moist blotting paper, or between wet flannel cloths on a plate. It is well to test several lots of 100 seeds each from every package, and to strike an average. If the vitality is found to be low, thicker seeding must be resorted to. Gardeners can afford to destroy plants when they are too thick, but in few cases does it pay to transplant.

The problem of wrong varieties is even more difficult to solve. The only remedy is to purchase from reliable, established houses. Under strictest care and most perfect system, it is possible for varieties to become mixed. The most successful seedsmen, however, find few complaints, and are willing to make reasonable amends.

Buy your garden seeds now, and make tests before spring opens.

**Fall Apples Profitable.**

There has been considerable development and improvement in commercial apple-growing in Canada during the last decade. That there is still room for improvement, all will agree, if they are at all familiar with the subject. Like the dairy industry, it is not a very old one. It is within the memory of the present generation when the first cheese factory was built in this country. Today, dairying is one of our most important industries, and Canadian cheese is second to none in the world's markets. I can remember well when the only apples available were the old seedlings planted by the first settlers. If any of these were marketed, they were shaken off the trees, picked up and put into bags, and carried in a heavy wagon. What a contrast to the present methods! And now, in the matter of varieties and fine quality, Canadian apples are second to none. Yet, though we have improved and developed along the line of fruit-growing until we have made it a very important industry, yet we are far from the standard to which we may attain.

The outlook, both at home and abroad, so far as markets are concerned, do not indicate that the supply is likely to exceed the demand. Canadian apples, like the famous hard wheat, have the attraction of high quality to recommend them, and fine quality in any product will always create and retain a market. It is often said—and truly—that we are growing too many varieties, and yet there is room for something new. For instance, we need a first-class dessert apple of about the same season as the Duchess; and the man who will originate one that will come up to the mark will confer a great benefit. It should be of the best dessert quality, of fair size, bright, attractive color and clean skin, not subject to fungous disease, and a tree that will ripen its fruit evenly. Some people regard the Duchess as a fairly good dessert apple, if fully matured and colored, and when it has reached the mellowing stage. But at this stage it is not safe for long shipment. There is too much acidity in its composition to suit the tastes of most people; and, while it cannot easily be excelled as a cooker, it comes far short of an all-round first-class dessert apple. The Early Strawberry is a well-flavored apple, but, like the Fall Pippin, it has deteriorated with fungous scab, until, generally, it is not marketable. The old Primate has fairly good dessert qualities, but it is too tender for any but the most favored sections.

There is a great demand for a first-class des-

sert apple for this particular season, for basket and box shipments, and we have really nothing to fill the bill.

As an early cooking variety, for basket shipments, I know of none better than Yellow Transparent. In this section, it is the first that is fit to cook—and an excellent cooker it is. Anyone living close to a railway station will find this variety quite profitable for basket or box shipments; I would never ship it in barrels. Further, if anyone finds he has more trees than he needs for this purpose, he can easily change them over to Spies by top-grafting. There is no better stock for this purpose. Some of the best Spy tops I have are top-worked on Yellow Transparent. It is an exceedingly hardy, thrifty, tree.

For its season, for both box and barrel shipment, we cannot well improve upon the Duchess. Its early bearing, great productiveness, hardiness, attractive color, and clean skin of the fruit, places it without an equal in its season. And its shipping quality is such that, even packed in barrels during hot weather, when shipped in well-iced refrigerator cars, it can be landed in any part of the West in good condition, and, as has been proved, in the British markets as well. After the Duchess, usually comes the Wealthy. But it is not a satisfactory apple to grow. When first introduced, it was said to be a winter apple. How far it comes short of that claim, everyone knows. It is a September apple, and, while the apple is of fairly good quality when matured, it has many faults. It bears early, but the tree overloads itself, and the fruit in the center top of the tree matures first, and, if exposed to the least wind, tumbles off, while the lower limbs are still loaded with small green, immature stuff that is not marketable. This is one of the varieties that would require thinning of the fruit, but, as a matter of fact, this is seldom done. Its tendency

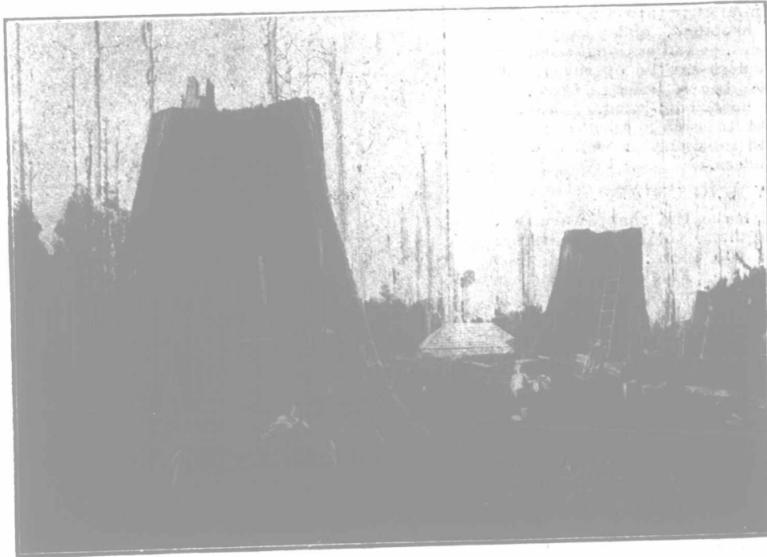
with a hearty reception in the markets of the West, and they always will if they are kept clean, well grown, and properly handled.

Of our other fall apples, the Alexander is a good bearer, with no pretence to dessert quality, but is a grand cooker; nothing excels it as a sauce apple. The same may be said of the Wolfe River, but it is fully a month longer in season. I think there can be no doubt of the fact that this apple will prove one of the most profitable to grow.

Ten years ago I would not have said much in favor of growing fall apples. The outlook then was not as promising as it is now. It has been proved several times within the last decade that in a year when the British Isles have a short crop, our fall apples, if well colored, clean, and landed in good sound condition, bring fancy prices over there. Then, we have every year the ever-widening market of our own great West, the possibilities of which we can hardly estimate or comprehend. In addition, we have better facilities for handling this class of fruit now than formerly, and we are confident of still further improvement in this line. Further, these varieties are hardy, thrifty and productive. Chief McNeill, of the Fruit Division, is probably not far astray when he says that the day of the fall apple has come.

There are a few varieties that may be classed as early winter apples, such as the Snow (Fameuse), Blenheim Pippin, Baxter, and King, though the King, in the Georgian Bay district, keeps well through the winter. I have them in my cellar now (Feb. 10th), quite solid and crisp; but the other three may be said to be at their best at Christmas. These three should be harvested and shipped together at the same time. For their season, I don't know that we can improve on them at present. The Snow is a universal favorite as a Christmas dessert; is always a good seller when clean and bright. This condition seems to

be largely a question of thorough pruning and spraying. There are four seedlings of the Snow now in cultivation in this country—McIntosh, Shawassee, Scarlet Pippin, and Princess Louise. All these have the Snow flavor. McIntosh and Louise, especially, have high dessert qualities, but it is doubtful if any of the four will supersede the Snow as a commercial variety. None of them will be successful over so large an extent of country. From Halifax to Vancouver, in every town and city, they are always in demand in their season. A few years ago I saw them selling in Detroit at \$5.00 per barrel, when apples were



Home-making in Australasia.

only a medium price here, in November. Of course, they had the duty of 75 cents a barrel against them, but they got there just the same. So, intending planters cannot go astray in giving this old variety quite a large place in the commercial orchard. But they must be pruned and sprayed.

Blenheim, though inclined to be a biennial bearer, is a clean-skinned, salable apple. Baxter, though not a heavy bearer, is regular, has no dessert quality, but is a good cooker, and its large size and fine color makes it a good market variety; but, like the Snow, it must be well sprayed. It has made some high records in prices in the old country in past years.

As already intimated, we are not now in a position that it is only profitable to grow the winter apples. Our position is such that we can have a rotation, so as to make the harvesting and shipping extend from August to the end of October. We do not have to put our eggs all in one basket.

Simcoe Co., Ont.

Those interested in garden crops, and particularly in an early supply, could profit by the use of a cold-frame. Not only can plants started in greenhouse, hotbed or kitchen window be hardened before being set in the garden, but also without resorting to any of these three, considerable gain in time can be made. By building a frame and fitting on a window sash, considerable heat is absorbed in day time, and during night the young plants are protected from frost.

G. C. CASTON.

## POULTRY.

### Housing and Feeding Young Chicks.

Editor "The Farmer's Advocate":

The first important thing in successful rearing of young chickens is the stock they are hatched from. If it is weakened in vitality by improper housing, feeding, etc., much greater difficulties are experienced in rearing them. The next important item is incubation. Some farmers have good stock, possessing strong vitality, but yet get very poor results from artificial means of incubation. Considerable experimenting has been done by our experiment stations along this line, and it is an established fact that moisture plays an important part in successful incubation. Chickens hatched in a dry atmosphere are liable to be weakly, and subjects for diseases, white diarrhea being most common. It has been found that, by washing an incubator out thoroughly before placing eggs in, with a ten-per-cent. solution of a good disinfectant, and using moisture pans below tray, this trouble is largely controlled. At some places it seems to work well, but at others not so perfectly. At the State College, Pennsylvania, work is about to be started in blood-count investigation, with the endeavor to find out, if possible, wherein the trouble lies. Investigation will also be started to try to find out what causes eggs to decay or rot under hens, and not in incubators. Weak germs, dying under hens, if allowed to remain three weeks, have a very offensive smell; this seldom occurs in a machine.

From many tests made, it is a well-established fact that well-constructed brooders, if properly managed, will raise as many as, if not more chicks than hens will. Fire brooders are far more dangerous around buildings than incubators. Fireless brooders are being operated with success by some. While at State College, Pa., I made two of these brooders, and ran parallel tests with heated ones. Indications seem to point that fireless brooders can be operated quite as successfully as the heated ones; these, of course, were run in a heated building. Seventy-five chicks were placed in each; they are now over six weeks old, and look just as well as those under the heated brooders.

#### FEEDING YOUNG CHICKS.

After young chicks leave the shell, warmth is the most important requisite to finish incubation. It is not wise to feed too soon; in most cases 48 hours is soon enough. Fine grit should be the first material placed before them; this can be given at any time after placing in the brooder. All brooders should be thoroughly disinfected before placing chicks in. This is most important, especially if chicks have been in them before, as there are almost sure to be a lot of disease germs, which may prove fatal to a good hatch. Normal-hatched chicks stand a much better chance of throwing these off than weaker ones. Care should be taken in the material used on the brooder floor. Often, incubator chicks will eat almost anything. Sawdust is possibly the worst thing that can be used; if eaten, it is indigestible. Mouldy chaff is also very harmful. Clean clover chaff or cut clover is probably the best material that can be used. Stale bread, moistened with milk, is probably the best food to start young chicks on; it should not be fed very wet. Where whole fresh milk can be had, there is nothing better for young chicks to drink; it is a food of itself, embodying all the essentials for starting young chicks off in life. It is not a good policy to let the chicks become very thirsty and gorge themselves at any time. Do not allow them to get into their drink, thus polluting it. A convenient drinking fountain can be made out of a tomato can, by punching a few holes near the edge of opening, and filling with the milk or water, and inverting in a small pan or saucer; the chicks can drink from the bottom as it feeds down. Green food should always be provided for young, growing chicks. Few people realize how important this is, especially if chicks are kept in confinement. A good feed is made by chopping up fine a good-sized onion with a hard-boiled egg and dry breadcrumbs, using enough bread to take up all the moisture of the egg and onion; this can be fed with good results after they are a few days old. Young chicks will soon learn to eat mangels or sugar beets chopped up fine, and it is surprising how much they will consume in a day. Lime in some form should be given for the formation of bone; broken plaster, dry ground-bone meal or oyster-shell, if fine, answers well. A dish of dry bran is much enjoyed by young chicks to pick at, but should not be fed as an exclusive ration. The sooner young chicks can be induced to take exercise in scratching for food, the faster they will grow. This applies more to chicks hatched early in the season, before they get a chance to run on the ground. Feeding fine head oats or wheat screenings in chaff answers well. Care should be taken not to feed too much heavy feed while in confinement, or leg weakness or indi-

gestion will follow. Cracked corn is probably the worst in this regard. After they have liberty on the ground in spring, cracked corn can be fed as part of ration with safety. After the chicks are ten days old, some form of animal food should be given. Beef scrap, if of good quality, fed once a day, makes them grow much faster. A goodly amount can be fed with safety after they get accustomed to it. If the combs are springing too fast, lessen the amount.

After chickens are a month old, and have free range, hopper feeding is best. Put them out in colony houses in an orchard or other shady place, and watch them grow. A cheap colony house for chickens can be made from two piano boxes. The backs and part of top are removed; two 2 x 4 scantling are placed under each end; the boxes are placed two feet apart; a wide door is made in front; the material in back and tops will nearly, if not quite, cover floor between and back side, also roof. An inch board, 12 inches wide, is cut for gable, to make pitch. The roof can be covered with roofing paper.

Brant Co., Ont.

J. W. CLARK.

### A Portable Poultry House.

Please describe a portable henhouse for 25 hens, the amount of lumber, scantling and other things needed.

F. M.

Mr. F. C. Elford, Macdonald College, defines a colony house as one where the fowls contained all live together as one family. It may be of many sizes and shapes. The advantages claimed for it are cheapness and effectiveness. It is cheap because of its construction, and because little or no fencing is required to divide the several pens of fowls. On the Macdonald College Farm they have two sizes of colony houses, one for 25 birds and one for 50. The 25-hen house is 8x12 feet. The



Raising Chicks by Nature's Method.

floor rests upon two runners, which may be flattened rails or poles; or, preferably, squared cedar of 6x8-inch dimension. By hitching a team to the runners the house may be moved to any desired location. These runners are placed two feet under each side of the house, and extend a foot at each end. The siding is one thickness of inch sheathing of planed, tongued-and-grooved pine; any rough lumber will do if battened. The east end, and two feet of the east end of each side is double boarded, to protect the roosts which are in this end. The house requires to build it, 1,100 feet of lumber and two squares of roofing paper. A handy farmer, who can do the work himself, could place one on his farm for about \$25, or one dollar per head of poultry accommodated. The cost of many of the long, continuous houses formerly advocated was \$3, \$7 and \$8, and occasionally \$10 per hen, which is too much capital to expect a hen to pay the interest on and at the same time make good a sinking fund.

Now is the time to prepare for winter eggs—next winter's eggs, of course. Having the breeding stock mated with one or more vigorous males of the breed you select, arrange to have a goodly proportion of the chicks hatched in April, or at least early in May. If one is keeping any considerable flock, and experiences difficulty in getting the hens to sit, let him buy an incubator and brooder, and run them off wholesale. With early-hatched, well-grown pullets of the American or Mediterranean breeds, it is a simple matter to secure snug profits from winter eggs. The early bird lays the high priced product.

### To Prevent Egg-eating.

Seeing an enquiry as to how to keep hens from eating their eggs, I am glad to be able to give you a sure cure. Procure some nail kegs for nests, and about three parts fill them with straw. In that way the hen has not room to see the egg, and will fly out and not eat it. I never had any more trouble after trying this plan. Wishing your great Home Magazine every success.

Grenville Co., Ont.

FARMER'S SISTER.

## THE FARM BULLETIN.

### Syrup-making on a Small Scale.

Editor "The Farmer's Advocate":

In the issue dated Feb. 25th, of your valuable paper, Frontenac Subscriber opens a discussion on maple-syrup manufacturing, and asks for the opinion of others on the subject. I, like himself, think that it is a paying industry, and should be worked at on whatever scale it can be. Frontenac Subscriber does not mention the size of evaporator, or give any information in regard to how he works things.

In the best way possible, I will give you my experience, and endeavor to outline the manufacture of this precious fluid, for the benefit of the readers who have not been fortunate enough to have been raised where it is manufactured—for instance, immigrants coming from the Old Country, and buying farms with maple groves from people wishing to retire. I own a hundred-acre farm, with about eight acres of bush, which has about 150 hard-maple trees in it. Each year I tap about 100 of them; some people in this vicinity tap a few soft maples and mix the sap from these with the sap from the hard maples, but I think that this spoils the flavor of the syrup and makes

it more apt to ferment, unless it is boiled down extra strong.

The trees are bored with a No. 9 framer's bit, about 2½ or 3 inches deep, and carefully cleaned out; then, metal spouts, with wire hangers, are driven into the holes, and tin buckets are hung on these hangers. The buckets hold two gallons, and are larger at the top than they are at the bottom, so that when the sap freezes in them it is easily got out. To gather the sap, we use a team of horses hitched to the front bob of an old bobsleigh, on which milk cans are fastened. The sap is gathered into large barrels and cans, which are

situated about the center of the bush, where the boiling is done. A galvanized zinc pan, measuring 5 ft. x 3 ft. by 8 inches deep, is placed on a foundation built of stones, with two cross-bars of metal. The foundation is well banked around the outside with clay. A smoke-stack is placed at one end, and a tin door or damper at the other end. The sap is put into a barrel, which is elevated above the pan, and is allowed to run through a tap into the pan as fast as it boils down. In this way the sap can be kept boiling all the time. Just a few more words, Mr. Editor, if I have not already taken up too much space. I would advise all farmers having a grove to keep at it, or start in the industry. If the grove is too small to make a large haul out of it, it should be worked to produce syrup for home use, as I think there is no syrup or preserves more palatable or easier to take than maple syrup; while, if you are fortunate enough to own a large grove, it certainly pays to invest in an evaporator and all other requirements for manufacturing the syrup. Wishing all readers who contemplate starting or carrying on the industry this spring, success.

Perth Co., Ont.

AN OLD SUBSCRIBER.

### Forthcoming Events.

Winnipeg Industrial Exhibition—July 10th to 17th, 1909.

King's new book on "Ventilation," as premium for one new subscriber, arrived yesterday. It surpasses my expectations. A. D. PERCY. Beauharnois Co., Que.

**Like the Bones in a [Sucker]**

Editor "The Farmer's Advocate":  
 One day I received in my mail a parcel containing the Christmas Number and two weekly copies of "The Farmer's Advocate," and a letter telling me that a kind friend had sent me the paper for a year as a Christmas box. I remembered "The Farmer's Advocate," then a little monthly, in my childhood, but had not seen a copy for years.

I opened the parcel, when, presto! change! the little monthly had changed to a large weekly paper. I liked it very much, and greatly appreciated my Christmas box, which began with a Christmas Number and ended with another, and so lasted an entire year round.

I like it because it stands up so firmly for the rights of the farmer, his wife, son and daughter. It also gives us good, clean, decent reading, and contains no politics or vile police-court news. It teaches us farmers the dignity of farming, to love our home and family, and to know that our boys and girls are our most valuable products.

Then each article is so carefully, thoroughly and plainly explained, so suitable for beginners, that dull indeed must be the man who cannot understand.

Sometimes I think the information contained in a single article worth more than the cost of a year's subscription.

For instance, there were several articles warning farmers of the danger of not exercising an infol mare; and other articles on how to prevent joint ill. Now, a neighbor lost two fine foals—one plainly for want of exercising the mare, and the other colt from joint ill. Had he read "The Farmer's Advocate" he need not have lost either. With horses the high price they are, the value of those two colts would have paid for "The Farmer's Advocate" for half a lifetime.

These are some of the good points of "The Farmer's Advocate," but want of space prevents me from telling all its good points. It would be a job like trying to count the bones in a sucker. Every mouthful is full of sharp points. Needless to say I am an

ENTHUSIASTIC SUBSCRIBER.

Parry Sound, Ont.

**South Ontario Co., Ont.**

Editor "The Farmer's Advocate":

The weather in this locality this winter has been very changeable. Much freezing and thawing has taken place, which will give winter grains and clovers a hard struggle. The clovers looked well last fall, but went into winter with little protection, owing to cattle pasturing on them so late. Very little alfalfa is grown here, although, wherever tried, has done well, and small trouble was encountered getting a catch. Considerable gypsum and salt will probably be used on the land this spring, although little was used before. Hay is very plentiful, and farmers are no way anxious to sell. Buyers are paying \$9.00 per ton, f.o.b., station, for No. 1 timothy, and buyers pay for pressing. One buyer remarked, recently, that if he was willing to lose \$1.00 per ton, he could buy 1,000 tons of hay in ten hours. South Ontario has a small boom in farm land at present, but I am unable to state cause. Cattle-buyers are around in good style. Quite a number of beef cattle, weighing at present from 1,100 to 1,250 pounds apiece, have been sold at \$5.50 per cwt., and it is reported \$6.00 was paid for some heavier ones; these cattle were to be shipped about May 1st. Hogs are very scarce, and brood sows sell very high at the numerous auction sales, while sheep are in very little demand, owing, no doubt, to the rather low price of wool. I understand many of the United States Western ranchers are trying sheep-raising for a change; but we believe, when prices are rather dull, and the neighbors are getting rid of what they consider unprofitable stock, it is wise to hold on to at least one's present stock, for in all probability the prices will soon straighten out. F. H. W.

South Ontario, Ont.

**Every Subscriber Should Have It.**

I received "The Farmer's Advocate" knife which you sent me as a premium for one new subscriber. I was greatly pleased with the knife. I consider it worth \$1.00, and, getting it as I did, I value it the more. I think if your subscribers generally knew what a valuable knife you give for one new subscriber, each one would make an effort to get it, and so your subscription list would be increased 100 per cent.

I have taken "The Farmer's Advocate" for a number of years. I find that it keeps improving, and very often read an article that I consider worth a year's subscription. The article in February 18th issue, page 245, "Prevention of Milk Fever," is certainly worth a year's subscription to any farmer that keeps cows. "The Farmer's Advocate" should be read carefully, so as not to miss anything. A. CONVERSE.

Richmond Co., Que.

**To Our Club-raisers.**

There are thousands of farmers who do not know what they are losing every year through not being subscribers to "The Farmer's Advocate and Home Magazine." Therefore, we want all readers of "The Farmer's Advocate" to act as club-raisers this year, and send us large lists of NEW SUBSCRIBERS.

If you send us two new names and \$3.00 to cover same (each new subscriber paying \$1.50), we will mark date on your paper forward one year as remuneration to you; or, for each single NEW NAME, accompanied by \$1.50, we will advance the date of your address label six months. Cash commissions or premiums, as preferred, for larger lists of new names.

In clubs of FOUR RENEWALS OR OVER, we will accept \$1.25 each.

Premiums not included in club offers.

Start raising your club immediately. Get "The Farmer's Advocate and Home Magazine" into every household in your locality.

**England and Ontario.**

AN AGRICULTURAL COMPARISON.

It is said that "comparisons are odious." Possibly so, sometimes, but they are generally interesting, often instructive.

If the northern and western districts, Rainy River, Thunder Bay, Algoma, Nipissing and Parry Sound, be eliminated from the Province, it will be noted that there are many points of similarity between Ontario and England.

Ontario, as a whole, is more than four times as large as England, but the part of it which is now under review—Eastern and Western Ontario, or cultivated Ontario—is, roughly speaking, about the same size, some fifty thousand square miles.

Furthermore, if England were pulled round from north to south-west, the shape of the two countries would be almost identical. This, however, is a purely geographical digression, and bears no importance to the subject of agriculture, except in so far that the area of the two countries is about equal.

Now, it may come as a surprise to many farmers to learn that the cultivated area of England exceeds that of Ontario. In 1907 (and these are the latest available statistics to hand) there were 10,777,595 acres of arable land, and 13,807,860 of permanent grass lands, or a total of 24,585,455 acres in England. In Ontario, at the same period, the figures were as follows: Total area of cleared land, 14,116,354 acres, of which 9,323,624 were under crops, and 3,349,101 under pasture. There were also some 326,000 acres of orchards and vineyards.

It will be seen that there is not a very large difference in the area under crops in these respective regions, and a few details regarding the various crops raised, and the amount of production in each case, will be of interest. The principal crops in England and Ontario were as follows:

	ENGLAND.		ONTARIO.		
	Acres under.	Average yield per acre.	Acres under.	Average yield per acre.	
Wheat	1,537,208	33.96 bush.	Fall wheat	676,164	22.99 bush.
Oats	1,967,682	46.61 "	Spring wheat	144,514	17.11 "
Barley	1,411,163	35.67 "	Oats	2,932,509	28.48 "
Beans	296,186	34.45 "	Barley	766,891	28.32 "
Peas	164,326	29.49 "	Peas	340,977	21.60 "
Turnips	1,058,292	310.46 cwt.	Beans	47,562	16.61 "
Mangels	436,193	446.20 "	Corn	343,934	61.70 "
Potatoes	381,891	122.97 "	Hay	3,289,552	1.18 tons
Hay, permanent grass	6,654,206	1.55 tons.	Potatoes	183,347	68.42 cwt.
Hay, clovers, sainfoin and rotation grass	3,067,432	1.86 "	*Roots	213,036	136.29 "

It will be seen that, not only in nearly every case is the production larger, but that in every instance the average yield per acre is much higher in England, especially so in wheat, oats and potatoes. With regard to wheat, it must be taken into consideration that the bushel in England equals 63 pounds, and that of oats 40 pounds, but, wherever used, the ton is calculated at 2,000 but, and the hundredweight 100 pounds. This higher percentage is probably due to (1) the proximity of salt water; (2) the more equable temperature, and consequent steadier growth of crops, and (3) more careful cultivation.

The following is a comparative table of the live stock for 1907:

	England.	Ontario.
Horses	1,189,147	725,666
Cattle, including cows and heifers	4,987,731	2,926,236
Sheep	15,098,928	1,106,183
Pigs	2,257,136	2,049,666

It is only fair to state that the average yield in Ontario for 1907 was generally much below that of 1906. ACHESON IRWIN.

**Another Traction Ditcher for Ontario.**

"The Farmer's Advocate" is glad to learn that the Traction Ditcher, described in these columns some time ago, is likely to be introduced more extensively into Ontario. Mr. Walter Day, at present a student at the Ontario Agricultural College, has purchased one, and will begin work in the Niagara district as soon as the College closes, starting on the farm of Mr. J. H. Rittenhouse, Vineland. Quite a number in that locality and around St. Catharines have already engaged him for their work. He hopes to branch out into other districts, probably making one trip toward Guelph and the County of Wellington. "The Farmer's Advocate" will be glad to see it demonstrated practically that this machine is a success, as, with the scarcity of farm help, it will mean much to the farmers of Ontario to be able to have their drains dug quickly, accurately and cheaply by machinery.

**Good Roads Delegates Discuss Problems.**

Deliberations at the seventh annual convention of the Ontario Good Roads Association, held in Toronto, last week, showed that an increased interest is being taken in the improvement of highways in rural Ontario. Reports from the road superintendents, working under the county-roads system, indicated thorough satisfaction. The unanimous opinion seemed to be that the old custom of statute labor should be discarded, and competent men given permanent supervision of the roadways, with power to engage assistants in the various localities whose duties it would be to keep roads in repair, and report regularly to the superintendent. A great deal of attention, too, was given to bridge construction, everyone testifying to the merits of cement.

In addition to practical addresses by those engaged in the construction of improved highways, interesting talks were given by Lieutenant-Governor Gibson, Hon. Dr. Reaume, Mayor Oliver and representatives of the Toronto Board of Trade. The Lieutenant-Governor showed an interest in good roads and his knowledge of the underlying principles. Dr. Reaume favored liberal assistance to those who did pioneer work in opening new agricultural areas, and promised full consideration of any reasonable suggestions from the convention. The city delegates urged co-operation between urban and rural officials, with a view to sharing expense connected with the betterment of highways.

It was a most valuable convention. But the greatest good was not derived by those in attendance because of a lack of system from start to finish. Attractive programmes were distributed, showing important features for forenoon and afternoon sessions on Wednesday and Thursday. Instead of following the programme, it was found necessary to change the order of

	ENGLAND.	ONTARIO.
	Acres under.	Average yield per acre.
Fall wheat	676,164	22.99 bush.
Spring wheat	144,514	17.11 "
Oats	2,932,509	28.48 "
Barley	766,891	28.32 "
Peas	340,977	21.60 "
Beans	47,562	16.61 "
Corn	343,934	61.70 "
Hay	3,289,552	1.18 tons
Potatoes	183,347	68.42 cwt.
*Roots	213,036	136.29 "

\* Turnips gave an average of 235.20 cwt.

the speakers, until not even the chairman knew what was "next." Allowance always must be made for disappointments at a convention. Occasionally a speaker finds that unforeseen circumstances prevent his filling an engagement. However, before the Good Roads Association can hope to be of maximum usefulness, a fixed programme must be followed. In addition, time must be given for discussions. Delegates to such conventions are anxious to exchange ideas. Perhaps it would be wise to devote less time to addresses from public men, and give that much more time for practical men to discuss practical problems.

Doubt was expressed by Hon. J. M. Gibson, Lieutenant-Governor, as to whether or not prog-

ress in road-making throughout the Province was in keeping with other agricultural advancement. He recalled experiences with the old corduroy roads. The effect of legislation now on the statutes in stimulating local effort at improvement of rural highways was outlined. In many districts he said that good work had been done by making use of road machinery to better the country roads without burdening the Province with debt. Cement with steel reinforcement was referred to as being a worthy successor to the old wooden structures. In time, it was claimed steel bridges also would be displaced. Indications were that concrete would be universally used in bridge construction.

Broad, flat roads in city, town and country were condemned. A vital principle had been neglected. Everyone knew that roadbeds should be crowned so as to shed the water, if they were to remain satisfactory. The association was doing much to educate along the lines of proper road construction. Every mile properly built served as an object lesson to the surrounding district. Systems would have to be adopted to meet the conditions in the various localities.

J. Walter Gage, of Hamilton, Warden of Wentworth County, thought that road-making should keep pace with the progressiveness of the age. The Government could do much more by way of assisting in the good work. The unemployed could be used to advantage. Farmers were well satisfied. In Wentworth County the cost had been about \$1.40 per thousand of assessment. This was less than the cost under the toll-road system.

By way of showing how progressive and how independent the farmers could be if they wished, Mr. Gage pointed out that the Township of Barton had passed accounts for long stretches of cement sidewalks, and that a sewerage system was being planned.

By a common levy, and without debentures, Perth County was going ahead with improvement of highways. Warden David Bonis, of St. Mary's, said that the work of the past few years had been highly satisfactory. Two years ago \$42,000 was spent. Last season about \$30,000 was the expenditure. No special county committee had been appointed, but the Reeves of each township acted in that capacity, and worked in co-operation with the county engineer. The ratepayers supported the system of paying in full each year.

A workable plan for counties where repairs and improvements were required and approximate cost, were given by Mr. Bonis. It was considered not necessary to rip up all old roadbeds that were in poor condition. In many cases a covering of six inches was as good as eighteen inches. Expenses averaged on nine road divisions showed that gravel could be placed at \$2.70 per cord, and broken stone at \$3.80 per cord. The greater efficiency of the latter made it the most advisable. Very satisfactory roads had been made at \$400 per mile, and under favorable conditions for \$100 less. Sub-surface drains at each side were to be preferred to one such drain in the middle of the roadbed. In reply to queries as to the most desirable width of roadbed and the grade from crown to shoulder, Mr. Bonis advised 16 to 20 feet as wide enough under ordinary conditions, but wider near a town or city. The grade would require to be greater, as the road was made wider, but one inch to ten or twelve from the crown was sufficient.

Advantages and comparative cost of cement bridges were carefully outlined by Frank Barber, County Engineer of York. The use of only high-grade cement and the employment of honest and experienced contractors were urged. One cause of failure was found to be due to finishing the filling in on one side of the arch before starting to fill the other. Structures built in recent years showed the use of cement to be efficient for arches as wide as 251 feet. Among the qualities that made cement popular were durability, lack of vibration, and the removal of necessity of repairs. Compared with steel, the cost was about 3 to 5 in favor of cement, and while steel lasted about 40 years, cement grew stronger with age.

Descriptions and directions for the use of road-making machinery were given by A. McG. Rankin, of Collin's Bay, who has had a wide experience in Frontenac County.

Co-operation of the ratepayers and the councillors with the road commissioners to ensure good work was urged by W. D. Annis, of Scarborough, as the most important factor in bringing about the commutation of statute labor. The old custom would "die hard." Too many were willing to work at low prices to escape taxes. If farmers would hire their men and teams to the commissioners at as low figures as they obtained by doing statute labor, no objection would be found to commutation in every municipality of the Province. Progressive farmers were always willing to do away with statute labor. As a rule they were specialists in their work, and were willing and anxious to leave road-making to specialists. Full explanation to the people, and the employment of capable commissioners, would speedily bring about the desired change.

Taxation on assessed values of property to ob-

tain funds for road-making purposes was advocated by A. W. Campbell, Deputy-Minister of Public Works. The old system of statute labor was unfair to many. The progressive and hard-working successful farmer always gave good service, while others positively refused to do their share, or in some cases totally neglected it.

At present, it was stated, that \$2,000,000 were expended annually in Ontario on road-making. The results were unsatisfactory. There was too much useless work. What was wanted was a more general interest among the people. In districts where ratepayers were opposed to commutation of statute labor, organization should be effected, and meetings held to point out the advisability of a change.

Special efforts were urged in improving inter-township roads and leading county roads. This could be done, by co-operation, at minimum expense. Strong concrete bridges, proper drainage and thoroughness on all roads undertaken were prime requisites. By working slowly and making every effort serve as an object lesson the work would progress and the people would get value for money expended.

Good-roads work in Halton was spoken of by J. G. Wilson, Road Commissioner for the County. Last year a start was made on 200 miles, with gravel and crushed stone. By crushing stone of lake formation and top-dressing with the screenings, three miles had been built at a cost of \$2,900. Altogether \$11,000 had been spent on bridges and \$10,000 on roads.

Overcoming deficiencies in cement bridges, according to Chas. Talbot, of London, County Engineer of Middlesex County, consisted in proper designing of the structure, competent contractors and careful supervision. Ratepayers would not discard steel bridges unless something more durable and cheaper was guaranteed in its place. The argument given was that steel would last until the present generation were dead. Up to 40-foot spans, reinforced concrete could be built at lower cost than steel. Prices given for building bridges last year included a bridge with 10-foot arch, 13 feet wide, 16-foot roadway, and all butments and filling at a cost of \$430; and another 15-foot span, 16-foot roadway, 9½ feet



The Most Delicious Sweet.

high, at a cost of \$3.40. Concrete for bases and butments cost \$5.40 per cubic yard, and for arches \$8.00 per cubic yard.

The county was in twenty-three divisions, each with a superintendent in charge, whose duty it was to see that all repairs were made. Each man had supervision over about ten miles.

It was specially urged by Mr. Campbell that care be taken to provide sufficient capacity for the largest floods when putting up a substantial bridge, even if the cost were increased. In many cases an otherwise valuable structure was destroyed because of too limited capacity.

Mayor Oliver, of Toronto, thought that hearty co-operation among representatives from county, municipality, town and city, with reasonable Government aid financially, should result in a vast improvement of country roads. He also suggested that, since automobilists made extensive use of highways, and were anxious to have them in good condition, the tax levied by the Government should be doubled or trebled to help swell the resources for good-roads purposes. The auto-owners, he said, would not object to increased fees, provided they were assured the money was spent on providing better roads.

Hon. Dr. Reaume, Minister of Public Works, recalled the hardships he had endured as a medical man, owing to bad roads. These experiences led him to consider this one of the most important features of his department. In most counties it was evident that statute labor should be done away with. Non-residents, who received annual notice regarding so many days' roadwork, could easily arrange to settle for 10 days' statute labor on payment of \$6.00 cash. This was ample evidence that full time was not put in by the men. In new districts, he was willing to pay

dollar for dollar, or even two dollars to one, for colonization roads. The settlers, however, must co-operate, and it must not be forgotten that, no matter what aid was given, the roads belonged to the people.

The chairman of the Good Roads Committee of the Toronto Board of Trade, L. H. Clarke, deplored the condition of the highways in the vicinity of Toronto. As the son of a farmer, and one who intended to return to rural Ontario to spend his declining years, he was interested in road-improvement. Toronto, he said, was willing to do its share in making this improvement. The city council would be petitioned for a grant of \$100,000, to be given to surrounding municipalities to assist in road construction and repairs. Secretary Morley, of the Board of Trade, also assured the Association that the city would give all possible aid.

A thoroughly Provincial road system was advocated by H. J. Bowman, of Berlin, County Clerk of Waterloo. Reference was made to the State aid across the line. Pennsylvania had granted \$40,000,000, and New York \$50,000,000, to improve leading highways in the State. This meant systematic progress by competent road-builders. The Ontario Government was not giving sufficient aid. At least dollar for dollar should be the rule. Regarding the automobile tax, it, too, was far too low. Instead of \$4.00 for the first year, and \$2.00 per year after, the levy should be \$100 the first year, and \$50 after.

Reeve Ford, of Trafalgar Township, stated that there were over 60 steel and cement bridges in the township. Recently, the ratepayers had been educated to the fact that cement was best, although steel had been used for 25 years. Money had been obtained by direct taxation. Road construction was expensive, owing to the nature of the clay, the necessity of drainage, and the difficulty in securing material.

It was explained by S. S. McDermand, of Lakeview, that Elgin County had turned down the county-roads scheme because the Government grant was insufficient. Suitable material could not be had at reasonable cost, and the expenses ran high for proper roadways. Elgin had, however, undertaken a scheme for road improvement. A committee had been appointed, and 250 miles of highway had been examined, and plans made to proceed with the work.

For building culverts or bridges, C. L. Hicks, of Humber, advocated that nothing be attempted before securing the services of a skilled engineer to design plans. Particular care was demanded in building the butments. Heavy stones never should be used above the ground level. Sharp sand and coarse gravel was best, but many used pit gravel. For butments, one of cement to three of sand and five of gravel, was the strength advised, while, for reinforced work, one of cement to two of sand and four of gravel gave satisfaction. All clay and foreign materials should be kept out, and no traffic should be allowed until the cement had set.

Earth roads, with pointers on improvement and maintenance, formed the basis for a most interesting and practical paper by W. B. Rittenhouse, of Beamsville, who has done missionary work in behalf of road improvement for many years. It was pointed out that the only permanent road was stone or macadam, but this was expensive. Earth roads were the only kind within reach, and these, when in good condition, were much easier on horses and vehicles.

A system whereby these earth roads could be maintained in good repair, at low cost, one learned by experience, was outlined. Surface and underground drainage were necessary. A saving of two inches or more of surface metal resulted from proper drainage. Tile could be laid at a cost of \$200 per mile, and great loss and inconvenience avoided. Many roads were made too wide. The width suggested was 18 to 24 feet, depending on the amount of traffic. The object should be to make them narrow, and thus to centralize traffic. Every road should be left in such condition that teams would travel on the crown. This could be done by proper smoothing, followed by two or three trips with a wide-tired wagon.

The split-log, advocated by "The Farmer's Advocate," was spoken of as one of the most important essentials in road-making, and in keeping earth roads in repair. Where it was not necessary to move large quantities from the sides to the center, one man and his team, with a drag, could do as much as two men and two teams with a grader. "It has been found," said Mr. Rittenhouse, "that our earth roads cost us for maintenance on an average of \$42.50 per mile each year, while the cost of dragging has been found to be \$3.00 to \$6.00 per mile, so that a great saving can be effected, as well as a greatly-improved condition." He advised frequent dragging, from early spring until late fall.

Education was alluded to as being very essential. "In my township" (Clinton), he said, "we have eight divisions, and are offering four prizes in each, so that the money and work will be fairly distributed, and those who compete,

usually doing the work adjoining their farms, are getting the benefit of the improved condition of the roads in more ways than one."

A competent man to manage details connected with road-making, and thorough drainage, were spoken of by A. J. Davidson, of Galt, as being the chief factors. It was impossible to build a permanent road if the drainage was not perfect. Graders were valuable, but thousands of dollars were wasted annually by these machines in incapable hands.

R. H. Jupp, County Road Superintendent, of Simcoe, outlined the work done in that county, and urged that every county make an effort to improve the highways. The ratepayers always were satisfied if they saw an improvement for money expended. He deplored the harmful influences of "cliques and pulls" in almost every county council, and said that work in bettering roads could not progress as it should unless harmony prevailed.

According to J. L. Taylor, Superintendent of Wentworth County roads, the stone used last year in construction and repairs would make a pile four feet wide and four feet high, stretching six and one-half miles. The cost ranged from \$1,100 to \$2,500 per mile for building stone roads, an average of 300 cords of stone per mile being used.

Rocks commonly found in Ontario were compared for efficiency in road-making by T. Aird Murray, of Toronto. Tough, good-wearing materials were wanted for the surface, while it was also advisable to use some grade of rock that would result in the minimum dust in dry weather. Samples of common rocks were shown.

RESOLUTIONS AND OFFICERS.

Move by J. F. Beam, of Welland, and seconded by H. S. Moore, of Simcoe, "That, whereas the Province has with a lavish hand aided our privately-owned railways, which provide the long haul to market for our farm products; resolved, that the Province now provide more liberal aid for the equally important short haul of the same products from the farm to the railway stations over our publicly-owned highways, by increasing the present grant from one-third to one-half the cost for good roads under county systems." The executive was appointed to present the resolution to the Government.

Officers were elected as follows: President—W. H. Pugsley, of Richmond Hill; Vice-Presidents—Wardens of the various Counties of the Province; Secretary-treasurer—Col. J. E. Farewell, of Whitby; Assistant Secretary-Treasurer—W. A. McLean, of Toronto; Executive Committee—Messrs. Pugsley, Farewell and McLean, and J. L. Taylor, of Wentworth County, and R. H. Jupp, of Simcoe County.

The auditor's report showed a balance on hand amounting to \$233.07. It was decided to print a report of the convention and have copies distributed.

Woodstock Combination Sale.

Notwithstanding the upward impetus imparted to Canadian Shorthorn business by the recent Toronto sales, and a gradually-reviving home demand for bulls, there is yet evidenced an indisposition on the part of breeders to invest heavily in anything but the choicest stock. Men who have still a surplus, or at least a full complement of cattle in their stables at home, hesitate to bid at public-auction figures which the intrinsic merit of the animals under the hammer really warrant. This was manifest at the second annual combination auction sale of Shorthorns, held at Woodstock, Ont., on Thursday afternoon, March 4th, when some thirty-five head were offered, comprising drafts from the herds of such well-known breeders as H. J. Davis, Woodstock; John T. Gibson, Denfield; Capt. T. E. Robson, London; James Lattimer, Woodstock; Scott Bros., Highgate; Wm. Waldie, Stratford, and Richard Gibson, of Delaware, Ont. The cattle, which were of good individuality and blood lines, were exposed in ordinary healthy breeding condition, and auctioned off in a covered and heated sale pavilion adjoining the Caistor House stables. Auctioneer Robson was in first-class form, and wielded the hammer with spirit and animation. The sale was conducted in an obviously honorable and above-board fashion, there being no by-bidding, and only a very few animals withdrawn, in one case because no bid was received, and in two or three instances because the highest figure offered was ridiculously below the value of the animal. The highest prices paid were, \$200 for the yearling heifer, Athelstane Rosewood 2nd, purchased by W. G. Pettit & Sons from the contingent of Wm. Waldie, Stratford, Ont., and \$230 for the bull calf, Beauty Chief (imp.), exposed by H. J. Davis, and sold to Solomon Shantz, of Haysville. Diabolo (imp.), a yearling bull from the same stable, elicited a bid of \$200 from W. W. Scott, of Highgate, Ont. The eight head from Mr. H. J. Davis' contingent, ranging from under a year upwards, realized an average price of \$118.75.

Following is the list of sales at \$75 and upwards

FEMALES.

Athelstane Rosewood 2nd, contributed by Wm. Waldie, calved Dec., 1907; W. G. Pettit & Sons, Freeman	\$200
Scottish Rose 3rd; Mr. Davis; April, 1902; R. F. Duncan, Carlisle	110
Lady Mina 4th; Mr. Davis; October, 1907; J. F. Wilson, Woodstock	115
Princess 3rd; Mr. Davis; May, 1901; John McKay, Wilkesport	100
Victorious 2nd; Mr. R. Gibson; Oct., 1905; John Wooley & Son, Petrolia	105
Sittyton Wimple; J. T. Gibson; Jan., 1907; Prof. G. E. Day, Guelph	80
Rosalie; T. E. Robson; Dec., 1906; Harry Smith, Exeter	75
Golden Drop 9th; Mr. Lattimer; Oct., 1903; Henry Stead, Wilton Grove	75
Proud Primrose; J. T. Gibson; July, 1906; Robert Curry, Oakdale	75

BULLS.

Beauty Chief; Mr. Davis; March, 1908; Solomon Shantz, Haysville	\$230
Diabolo; Mr. Davis; November, 1907; W. W. Scott, Highgate	200
Broadhooks Hero; Mr. Davis; June, 1907; James Brown, Thorold	80
Mina Boy 15th; J. T. Gibson; May, 1908; James Wylie, Wisbeach	90
Broadhooks Chancellor; Scott Bros.; May, 1908; J. A. Campbell, St. Thomas	75

Alberta Pork Commission Report.

The report of the Commission, consisting of Messrs. R. A. Wallace, Jas. Bower and A. G. Harrison, appointed by the Alberta Government to inquire into the condition of the hog-raising industry in the Province of Alberta, and advise what measures might be taken to insure for hog-raisers a fair price for their products, was presented to the Provincial Legislature on February 18th. After reviewing the terms of the commission, and the evidence taken in various parts of the Province, the report points out that the evidence shows that, not only has the farmer not received what he considers a fair price (five cents per pound live weight) for his hogs, but that he has not, in very many cases, been able to receive any price at all; that he is able to overstock the market; that his energies have been curtailed on this account, and that he does not know where to turn for a market for what he can raise in the hog line, even at any price, and still 75 per cent. of the cured meat is imported.

After pointing out the injury such state of affairs does to the Province, and discussing the home market and that provided in British Columbia and in Great Britain, it is claimed that, if a Government-controlled plant does nothing more than demonstrate, as the creameries have done, that the article to suit the trade can be raised, and also cured, in Alberta, it will be worth the experiment and the financial risk in making such, besides giving an incentive to farmers to go into the hog business and mixed farming, as well as wheat-raising, making Alberta a "sure-crop" Province, and a Province in which financial institutions will have faith to do business.

The plan of organization suggested by the commission is that, when a sufficient number of hog-growers give a reasonable assurance that they will supply at least 50,000 hogs per year to a plant, and that they will elect from among themselves officers and directors whose duty it will be to look after the steady supply of hogs of suitable quality, to decide on the amount of money needed from time to time to successfully operate the plant; to look after the conduct and ability of the operators, the Government shall furnish the money to build, equip and operate a plant, as they and the directors deem most advisable, so constructed to admit of enlargement, and the original plant to have a capacity large enough to handle at least three hundred hogs a day at the start; that the management take in the farmers' hogs, pay them at time of delivery up to two-thirds of their estimated value, then at regular intervals, as may be agreed upon, when sufficient time has elapsed to place the product on the market, pay the producers the balance of the full value of their product, less the cost of curing and marketing the same, and a sum sufficient to pay local working expenses, such as insurance, taxes, directors' remuneration, etc., less one-quarter cent per pound live weight, this one-quarter cent per pound to be applied to the creation of a fund for the purpose of paying back to the Government their original investment and interest thereon. And, at the same time, to allot shares to each patron equal to the amount paid into this fund by the assessment of the one-quarter of a cent per pound on his product.

It is recommended, further, that when the Government indebtedness has been finally paid off by this fund, that the fund be applied to paying a reasonable interest to the patrons on the amount of shares held by them, and take the balance to be paid as a bonus on each pound of pork supplied, shares to become transferable only

to bona-fide patrons, and then only by application to and with the consent of the directors. But, in the event of removal or death of any of the patrons, and where application has not been made for such transfer by him or his heirs for the space of one year subsequent to such removal or death, then the directors may have power to cancel such shares, and apply the proceeds to the general fund.

The commissioners also recommend that, in the event of it being found necessary to erect additional plants at other points in the Province, those patrons who wish to withdraw from the first existing plant, may do so, with the approval of the directors, the shares held by them being transferred to the new plant with which they may affiliate, and the amount of money thus withdrawn from the first existing plant to be made by the remaining patrons, as before.

A recommendation regarding freight rates is that the sum-total be subdivided, and charged equally against each pound of pork. Regular shipping days are advised. Patrons will be required to enter into agreement to give all hogs disposed of for curing purposes to the packing-plant, and if this rule is violated, they will be subjected to a fine not exceeding two dollars for each hog disposed of to other parties. Further clauses discuss the size of buildings and the necessary equipment, and estimated cost of operation.

Cement Exhibition.

Magnificent displays, speaking volumes in behalf of the increasing value of cement in all lines of building construction or ornamental work, were in evidence at St. Lawrence Arena, Toronto, last week, at the exhibition held under the auspices of the Canadian Cement and Concrete Association. Leading firms of the continent vied with each other in demonstrating the varied uses to which cement could be put. In one exhibit it was a concrete beam, twelve feet long, supporting many tons of metal in its middle, while in others the structural formations ranged from huge pillars to ornamental vases for lawns. Mixers, elevators, and all lines of machinery used in the manufacture of concrete, too, were in evidence. Roofing materials, refrigeration boxes, tiles, siloes and fireproof buildings of reinforced concrete were attractive features.

From the standpoint of demonstration in the numerous uses to which rock products could be put, it would be difficult to imagine a more worthy display. That it did not reach the mass of the people who are to become extensive consumers, however, was shown by the small attendance. The majority of those who showed their interest by paying the exhibition a visit, already knew many of the qualities that made cement popular in all lines of construction. Such displays in centers where the consuming public could see the universality of uses, would be of much greater value from the business standpoint.

Among those who had creditable and attractive displays were: Ideal Concrete Machinery Co., of London, Ont.; London Concrete Machine Co., of London, Ont.; Galt Art Metal Co., of Galt, Ont.; Goid, Shapley & Muir, of Brantford, Ont.; Cement Tile Machinery Co., of Chatham, Ont.; Canadian Portland Cement Co., of Toronto, Ont.; Mimico Pressed Brick Co., of Mimico, Ont.; The Senator Mill Manufacturing Co., of Galt, Ont.; The Industrial Chemical Co., of Swansea, Ont.; Canada Wire Goods Co., of Hamilton, Ont.; Wettlaufer Bros., of Mitchell, Ont.; F. Hopkins & Co., of Montreal, P. Q.; T. McQuain, of Toronto, Ont.; Brantford Roofing Co., of Brantford, Ont.; and Mussens, Limited, of Montreal.

Greatest Protectionist of Them All

I said in a former letter that if Canada allowed foreign merchandise to enter duty-free, and foreign governments refused to reciprocate, that would be a very one-sided arrangement. Your Parry Sound correspondent takes exception to the statement, with what justice, I leave your readers to decide. He also says Taft and Bryan promised, if elected, to revise the United States tariff. What has that to do with free trade, I would like to know? According to "The Farmer's Advocate" of December 3rd, 1908, Mr. Taft declares himself a "protectionist." Tariff revision does not mean free trade. The Conservatives, when in power, revised the tariff, and the Liberals have done the same, but we still have a protective tariff. Mr. Miller, in his dilemma, calls upon Carnegie, Hill and Johnson to help him out. He should know that the men he mentions are utterly opposed to his views with regard to free trade and direct taxation. There isn't an out-and-out free-trader in the bunch! In "The Farmer's Advocate" of February 11th, S. W. C., of Oxford Co., Ont., introduces the case of Montenegro! Now, I submit that we are not called upon to devise a fiscal system for the Montenegrins. The gentleman, in commencing, says he heartily believes in free trade, and thinks this country would be far better if she had it. So far, so good. But, before he closes, he begins to

"hedge." If our present tariff is abolished, he would have, as a substitute, an anti-dumping tariff, to prevent the Yankees and the Germans from driving our manufacturing companies to the wall. Well done, old boy! You are a protectionist, all right—when you get the free-trade veneer rubbed off! But this is not all, by any means. He is going to have a Board of Trade Commission appointed, who will control imports, and only allow merchandise to enter at the prices charged in their respective countries. But this Board of Trade Commission is also to regulate the price paid by the consumer for his supplies! This is paternalism with a vengeance. T. W. C. goes on to say that artisans are bled, but the farmer is bled most of all. He cannot raise the price on his products any higher than what he receives on his surplus, which is sold in the great free-trade markets of the world. The only free-trade market open to him is that of Great Britain and Ireland; there is none other. It is generally believed that the prices of farm products have reached the top notch. Will the gentleman kindly furnish the readers of "The Farmer's Advocate" with a list of articles of farm produce, with prices attached, that would suit his lordship? It strikes me that S. W. C. doesn't quite know his own mind. He commences his letter as a free-trade advocate, and before he closes he gets farther away from it than any protectionists I have ever conversed with. WILLIAM BOYLE, York Co., N. B.

### Jingoism Come to a Head.

A great scheme has been prepared by the British War Office, and approved by the Dominion Government, to organize an army equal to Germany's. Are Canadians to be measured up against Germany, or any other nation, without cause, at the whim of the British War Office? Even the King's kind visit to Germany in the interests of peace failed to allay that awful war spirit. Nothing but blood can appease its devilish thirst. Hideous as is that spirit, it is fast being inhibited by the Canadian press and Parliament. Apparently Germany's offence is the building of a few more war vessels. If that is a menace to the peace of the world (and it is a menace to peace), then surely Germany is not the greatest sinner. Is it not Britain's boast that her navy must equal that of any other two world powers?

So Canada is to become a flag and army worshipper, and share in Britain's military glory.

Looking through this thin veil of glory, we see the toiling millions robbed to build great Dreadnaughts, and while gorging the mighty war spirit the toilers are pleading in vain for bread.

Let the voice of the people of this great American continent be lifted up for peace, lest we become like Europe a military cockpit, where the glory of each power is measured by the length of his spurs. THOS. B. SCOTT, Middlesex Co., Ont.

### One Article Worth the Price.

I have been a reader of that good old reliable, "The Farmer's Advocate," for more than twenty years, and find I can rely on it more than ever for good solid facts and information; in fact, I often find one article worth the subscription price. Carleton Co., Ont. E. J. NIXON.

The New Brunswick Farmers and Dairymen's Association will hold its annual meeting at Fredericton, N.B., March 17th, 18th and 19th.

### U. S. and Canadian Farmers Pay.

Editor "The Farmer's Advocate":

I thought my work was done with the tariff business, but I see it goes on apace. Mr. Boyle, of N. B., says his contention is that the farmer pays no duty directly or indirectly. When McCormick sends binders to Canada for sale, the duty is paid on entering. Up to that time our farmers have nothing to do with it. Certainly, it is after it crosses the line that the consumer has to pay the duty. He says McCormick gets \$90 for his machine in Canada, and \$115 on the other side of the line. It is strange that he will throw away \$25 for the privilege of selling in Canada. But it costs about \$15 to make the machine, so, you see, he doesn't lose much by selling it for \$90. And if the farmer got it for \$90 it would be all right; but he must pay \$125; therefore, he pays the duty. I would like to ask why our stores are stocked with American goods all the time, though the tariff is on? And if we had 100 per cent. tariff, it would be just the same. The answer is, because our manufacturer adds the duty to the price of the goods, thus allowing the American article to come in and compete. But when McCormick operates on the other side of the line, he has no opposition; all are combined, to set a price just as high as will keep the outsider out; and this time it is the U. S. farmer that is fleeced. If our manufacturer sold his grain binder for \$100, he would not be troubled with the other fellow, but then he would lose the \$25 duty; it is evident that he believes the tail should go with the hide. The manufacturer cannot increase anything, except the price of his goods. If he takes a shaving from a board, it is just that much less; if he takes a ton of coal from the mine, there is just one ton less in that mine; he can only use the raw material that was there before him. If the farmer plants a bushel of grain, it will increase 10 or 20 bushels. Look at the millions of bushels that grew in the Dominion last year, and the land is there to perform the same thing again. This is the only true source of wealth; everything must come from the ground. Stop this source, and mankind would shrivel up. Mr. Boyle is like the man who said, "I stand to be convinced, but Lord show me the man that can convince me." Wellington Co., Ont. GEO. BEER.

### Price of Maple Syrup.

Editor "The Farmer's Advocate":

I noticed in the columns of your paper a letter from a Frontenac subscriber on "Maple Syrup Manufacturing," also remember his letter of last year, and also that he did not get an answer, so thought I would give a little of my experience and ask a few questions. Last year I purchased a modern evaporator, and have found by using it I could make syrup more easily and much nicer than by the old way, but we cannot get as much for it here as our Frontenac subscriber does, \$1 per gallon being the highest price. Just here let me ask him if he got \$1.20 for syrup, or was it \$1.20 for can and syrup, and on what he sent West did he, or parties sent to, pay freight? Would he be glad to hear again from Brother Farmer, of Frontenac, in the near future. STORMONT SUBSCRIBER.

Please find enclosed my renewal, \$1.50, for another year. I consider your paper the most up-to-date farmer's paper in America, and I wish you success with your paper, as it certainly brings success to us. A. E. TINDALE, Halton Co., Ont.

### Delivery by Milk Producers.

The series of disputes between the producers of milk in the vicinity of Toronto and those who retail the product daily to the consumers, promises to lead to the formation of a joint-stock company, composed of producers, for the purpose of erecting a milk-delivery depot. Reports of a mass meeting held on Saturday indicate that steps will be taken to secure the services of a competent man as manager.

The unanimous expression of opinion was that the dealers had not treated them fairly as to prices. It was claimed that a distributing plant, operated on the co-operative plan, would give greater returns to the producer, and also supply the consumer at lower rates than at present prevail. A committee was appointed to look into the matter and arrange details.

### A National Fair Association.

A movement for the organization of a National Fair Association has taken shape in the State of Ohio, the intention being to include in its membership, state, county, district and other agricultural fairs and expositions, the objects being not only the stimulation and encouragement of such shows, but the co-operation and protection of its members. It is proposed to hold an annual meeting and to collect a small fee, graded according to the size of the fair. The recommendations of the committee appointed a year ago seem to look to inducing fair managers generally to adopt more uniform classifications, and to eliminate questionable or vulgar side shows and concessionaires.

### Pork-packing in Essex Co., Ont.

Following up the establishment of a big branch of the great American Heinz Pickling Company, South-western Ontario is now regarding with great interest the early beginning of another important industry directly allied with agriculture, viz., a pork-packing house, also at Leamington, in South Essex. The project is in charge of J. S. Proal, of Oxford, Mich., who has had a lengthy experience in the bacon and ham curing trade. In view of the immense numbers of hogs reared and annually shipped out of Essex, the opportunities for the new enterprise would seem to be almost unlimited. Temporary premises will be used for the present, but later in the season a large building is to be erected.

As many of the patrons of the International Horse Show were last year unable to obtain the precise seats which they required, owing to the exceptional demand, the directors have decided that the tickets shall this year be issued at an earlier date, and that those who applied last season shall be given the first opportunity of securing, if possible, the exact places desired. Manager Frank F. Furen informs us that for the coming show, to be held from Saturday, June 5th, to Tuesday, June 15th, inclusive, prices have generally been reduced. There will be 18 performances, afternoon and evening, and each performance will be complete in itself.

### QUESTIONS AND ANSWERS. Miscellaneous.

#### GREEN MANURING OF SUMMER-FALLOW-ALFALFA.

I have a ten-acre field which I wish to summer-fallow, but only have manure for about six acres. Would you advise the sowing of buckwheat and plow under as a green manure, or if some other crop would be more advisable, the soil being a clay loam? In seeding down with lucerne, would you advise sowing by itself, or what crop is preferable, and what amount per acre is required? A SUBSCRIBER.

Ans.—As a green manure, buckwheat is probably the best of the leguminous crops. It produces a luxuriant growth even on poor soils, and if plowed under before it becomes old and woody it decays quickly. A decidedly better crop for the purpose, though a little more expensive to seed, is field peas, which have the great advantage of adding to the soil nitrogen abstracted from the atmos-

phere. The average results of a series of tests conducted in duplicate for four years at the Ontario Agricultural College comparing different systems of preparation for fall wheat, gave the following results: Twenty tons of barnyard manure per acre on bare fallow, 40.9 bushels; crop of peas plowed under, 36.1 bushels; bare fallow, 33.8 bushels; crop of buckwheat plowed under, 29.6 bushels. These results show that peas give much better results than buckwheat when plowed under as a green manure for wheat. Superficially, they would also seem to indicate that bare fallowing was better than green manuring with buckwheat. It should be remembered, however, that these experiments took no account of the effect upon subsequent crops. The land on which the experiments were conducted was quite rich. The summer-fallow rendered available much fertility present in the soil, of which, although much was inevitably wasted, a sufficient proportion was utilized to grow a good crop of wheat. All things considered, there is little doubt but that green manuring is much preferable in the long run to bare fallowing, particularly if a leguminous crop be grown for the

purpose. Sometimes the turning under of a green crop has the temporary disadvantage of bringing about a slightly acid condition of the soil. This can be neutralized to advantage by an application of lime.

2. Taking it by and all, the chances for a successful seeding are better when the alfalfa seed is sown alone, but if a bushel of barley is sown per acre at the same time one has a fair return in grain the first year, the barley tends to keep down weeds, and the harvesting of it answers instead of the midsummer clipping, which is usually considered necessary when the alfalfa is seeded alone. Sow 20 pounds of good alfalfa seed per acre.

#### TRADE TOPIC

The C. J. Daniels Milling Co. of Toronto, advertise a variety of the most approved poultry feeds. Mr. Daniels has had long experience in the poultry industry, and knows all about the requirements for successful poultry raising. See the advertisement and write to "Poultry for Profit."

#### GOSSIP.

John Smith, ex-M.P.P., for Peel County, well known by many stockmen as a eminent and proficient auctioneer, died at his home in Brampton, on March 5th, pneumonia, after a few days' illness, his 78th year. Mr. Smith was a man of fine stature, large-hearted and liberal, and of sterling character and sound judgment.

The inspector was examining Standard E. and all the class had been specially told beforehand by their master: "Don't answer unless you are almost certain your answer is correct."

History was the subject. "Now, tell me," said the inspector, "who was the mother of our great Scottish hero, Robert Bruce?"

He pointed to the top boy, then round the class. There was no answer. Then, at last, the heart of the teacher of that class leapt with joy. The boy who was standing at the very foot had held up his hand.

"Well, my boy," said the inspector, encouragingly, "who was she?"

"Please, sir, Mrs. Bruce."

**Incorporated 1885**  
**THE**  
**TRADERS BANK**  
**OF CANADA**

**Capital and Surplus, \$ 6,350,000.**  
**Total Assets, 34,000,000.**

Our 85 branches, and other extensive connections, enable us to offer a splendid banking service to our clients.

Collections promptly made. Negotiable paper discounted. Exchange bought and sold. Money transmitted by Draft, Money Order or Telegraph Transfer.

\$1.00 opens a Savings Account.

**THE BANK**  
**FOR THE**  
**PEOPLE.**

74 Branches in Ontario. The manager of the nearest would welcome your account.

**MARKETS.**

**Toronto.**

**LIVE STOCK.**

At West Toronto, on Monday, March 8th, receipts numbered 38 cars, consisting of 716 cattle, 7 hogs, 48 sheep and lambs, and 12 calves. Quality fair to good; prices firmer. Export steers, \$5.25 to \$5.50; bulls, \$4 to \$4.50; prime picked butchers', \$5 to \$5.25; select loads, \$4.90 to \$5; loads of good, \$4.60 to \$4.80; medium, \$4.25 to \$4.50; common, \$3.75 to \$4.25; milkers, \$3.5 to \$6.5; veal calves, \$3 to \$7 per cwt. Sheep, \$4 to \$4.50; lambs, \$6 to \$7 per cwt. Hogs, firmer; \$7.15, fed and watered at market; \$6.85 to \$6.90, f. o. b. cars country points.

**REVIEW OF LAST WEEK'S MARKET.**

Receipts of live stock last week at the City and Union Yards were fairly large.

The total receipts of live stock were 307 carloads, consisting of 5,154 cattle, 1,031 hogs, 1,017 sheep and lambs, 295 calves, and 187 horses.

At the Union Yards, West Toronto, on Monday, February 1st, there were more good to choice quality cattle offered than on any market day since Christmas. At the City market, while there were several loads of good cattle each market day, the bulk were of the common to medium classes. Trade was active for choice, well-finished cattle, but slow for common and medium-light weights. Prices were easier for exporters, and firm for first quality butchers', but easier at the end of the week for the common grades.

Exporters.—Export steers sold from \$5 to \$5.50; bulls, \$4 to \$4.50. There were four steers that were extra-well finished, as good as the best quality Christmas cattle, that were reported at \$5.70.

Butchers'.—Prime picked lots of heifers and steers, 1,050 to 1,150 lbs. each, sold at \$5 to \$5.15, and one or two lots brought \$5.20; selected loads sold at \$4.90 to \$5; loads of good, \$4.40 to \$4.60; medium, \$4 to \$4.30; common, \$3.50 to \$3.90; cows, \$3 to \$4.40; canals and common cows, \$1.50 to \$2.65; bulls, \$3 to \$4.

Stockers and Feeders.—Not a great deal of change was noted in the market for stockers and feeders during the week.

Buyers were not numerous and prices remained about the same as the week before. Best feeders, 900 to 1,000 lbs. each, \$3.70 to \$4.15; best stockers, 700 to 900 lbs. each, \$3.30 to \$3.70; medium stockers, 600 to 700 lbs. each, \$3 to \$3.25.

Milkers and Springers.—The week's business in milkers and springers did not show much change, the market still remaining strong for the good to choice classes. Prices ranged from \$35 to \$60, and one large 1,500 lbs. Holstein cow brought \$75.

Calves.—Receipts moderate; market strong, at \$3 to \$7 per cwt.

Sheep and Lambs.—Receipts light; choice quality firm, but inferior lots not wanted. Export ewes, \$4 to \$4.50; rams, \$3.25 to \$3.75 per cwt.; lambs, \$6.50 to \$7 for choice, grain-fed lots; common and inferior, \$5 to \$5.50 per cwt.

Hogs.—Receipts light, with prices firmer, as the week advanced, at \$7 for selects, fed and watered at the market, and \$6.70 to \$6.75, f. o. b. cars at country points.

Horses.—Trade in horses was better last week than for some time. The demand for the Northwest has increased, and there were many buyers from different points in Ontario, as well as some from the Maritime Provinces. Trade was brisk, especially for draft and delivery horses. The number of drivers on sale was small. The consignors of horses to the Union Horse Exchange were: James McKee, of Kerwood; A. B. Campbell, Berlin; W. Gallagher, also of Berlin, and Maker & Johnson, of Stayner. Five draft mares, three pure-bred Clydesdales, sold for \$1,000, to go to the Northwest, and a 1,500 lbs. pair of geldings sold for \$300; three other mares brought \$430. One pair general-purpose geldings sold at \$380; a pair of drafters, five and six years, 1,600 lbs. each, sold for \$430. Manager Smith reports prices as follows: Drafters, \$160 to \$200, general-purpose, \$110 to \$180, wagon horses, \$150 to \$200; drivers, \$100 to \$160, serviceably sound horses, \$40 to \$80. Mr. Smith reports one extra-fine pair of drafters at \$475.

**BREADSTUFFS.**

Wheat.—No. 2 white or red, \$1.06 to \$1.07; No. 2 mixed, \$1.06 to \$1.07, outside points. Manitoba—No. 1, \$1.20; No. 2 northern, \$1.17, at Georgian Bay ports. Rye—No. 2, 69c. to 70c. bid, outside. Peas—No. 2, 92c. to 93c., outside. Oats—No. 2 white, 49c. bid, track, Toronto; No. 2 mixed, 45c. to 46c., outside. Barley—No. 2, 59c. bid, outside; No. 3X, 57c. bid, outside. Buckwheat—No. 2, 59c. to 60c. Corn—No. 2 yellow American, 73c. to 73c.; Canadian, 69c. to 70c., Toronto freights. Bran—Scarce, at \$24.50 to \$25, in sacks, car lots, track, Toronto. Shorts—Plentiful, at the same prices as bran. Flour—Ontario 90 per cent. patent, \$4.05 to \$4.10, in buyers' sacks; special brands of Manitoba patent, \$5.60; seconds, \$5; strong bakers', \$4.90.

**COUNTRY PRODUCE.**

Butter.—The market is demoralized, receipts being very heavy, with prices weak and lower, with prospect of still lower quotations. Creamery pounds, 26c. to 27c.; separator dairy, 24c.; creamery solids, 21c. to 22c.; store lots, 19c. to 21c. These prices are about 6c. to 7c. per lb. lower than at the same date last year.

Eggs.—Receipts have been liberal, with prices slightly lower, at 26c. to 27c. per dozen.

Cheese.—Market quiet. Prices unchanged; large, 13c.; twins, 11c.

Honey.—Extracted, 10c. to 11c.; comb, scarce, \$2.25 to \$3 per dozen sections.

Potatoes.—Receipts large, market steady. Car lots of Ontarios, on track, Toronto, 63c. to 65c. per bag.

Beans.—Trade brisk; prices firm, hand-picked, \$1.95 to \$2.15.

Poultry.—Receipts small, with prices firm. Turkeys, 22c. to 24c.; geese, 15c.; ducks, 18c.; chickens, 11c. to 16c.; fowl, 12c. to 13c.

Hay.—Market easy. Baled, \$10.50 to \$10.75, for car lots, on track, Toronto.

Straw.—Baled, in car lots, track, Toronto, \$7 to \$7.50.

**VEGETABLES.**

Onions, 70c. to 80c. per bag; turnips, 35c. per bag; parsnips, 35c. to 40c. per bag; red carrots, 25c. to 35c. per bag; beets, 35c. to 40c. per bag; cabbage, \$2 per barrel.

Apples.—Choice winter apples are scarce

and higher in price. Choice Spies are worth \$1.50 to \$5.25, and wholesale dealers are asking \$6 per single barrel. Greenings and other winter varieties sell at \$3 to \$4 per barrel.

**HIDES AND WOOL.**

E. T. Carter & Co., 85 Front street East, Toronto, have been paying for No. 1 inspected steers, 60 lbs. and up, 10c.; No. 2 inspected steers, 60 lbs. and up, 9c.; No. 1 inspected cows, 9c.; No. 2 inspected cows, 8c.; country hides, 8c. to 9c.; calf skins, 12c. to 14c.; horse hides, No. 1, \$2.75; horse hair, per lb., 30c. to 32c.; tallow, 5c. to 6c.; sheep skins, each, \$1.10 to \$1.20; raw furs, prices on application.

**SEED MARKET.**

The Wm. Rennie Co. report the seed market very quiet. Farmers have quite an amount of red clover seed still in their hands, but it is generally of inferior quality. Prices are quoted as follows: Alsike, fancy, \$7.25 to \$7.50; No. 1 quality, \$6.90 to \$7.20; No. 2, \$6 to \$6.50; red clover, \$4.60 to \$5.75; timothy seed, \$1.30 to \$2.25.

**Montreal.**

The weather has been fairly favorable of late for the shipment of live stock, and receipts did not suffer any diminution, consequently, on this account. At the same time they were light, so that the falling off in the demand consequent upon the Lenten season had little effect upon the general market. Contracts, however, are being made ahead for delivery of choice cattle at around 5c. at the first of April, and 4c. more at the beginning of May, thus demonstrating the strength of the position. Choice sold at 5c., fine at 5c., and good at around 4c. to 5c. per lb., medium being 4c. to 4c., common 3c. to 3c., and inferior down to 2c. Supplies of sheep and lambs continued limited, and trade was quiet. Choice lambs sold at 7c. and a fraction less, while good ranged from about 5c. to 6c. per lb. Best sheep ranged from 4c. to 4c. per lb., and inferior down to 3c. per lb. The market for calves was very uncertain and irregular. Prices were 6c. to 8c. per lb. The hog market was stronger, and prices advanced, being about 7c. to 7c. or 7c. per lb., for straight lots, weighed off cars.

Horses.—Dealers reported an improvement last week in the demand for horses of all kinds. It would seem that this demand comes almost entirely from the vicinity of Quebec, although a few horses were wanted for other sections. The Northwest has not sent any orders of consequence, although dealers are constantly shipping animals out in that direction. The local demand was exceedingly light, but is expected to improve in the near future. Prices showed no change, being as follows: Heavy draft horses, weighing 1,500 to 1,700 lbs., \$225 to \$300 each; light draft, 1,100 to 1,500 lbs., \$185 to \$240, good blocks, 1,300 to 1,400 lbs., \$175 to \$200 each; small or inferior horses, \$50 to \$75 each; and choice saddle or carriage animals, \$300 to \$500 each.

Dressed Hogs and Provisions.—There was a fair demand for dressed hogs of all qualities, and prices of fresh-killed, abattoir-dressed hogs continued steady, at 10c. to 10c. per lb. Manitoba dressed sold at 9c., and country dressed at 9c. to 9c. Demand for all kinds of provisions was a little on the light side, but prices held steady at previous ranges. Green bacon sold at 11c. to 12c., the latter figure being for boneless, while smoked bacon brought 15c. per lb. for thick, 15c. for select boneless, 16c. for best backs, and 11c. per lb. for inferior grades. Hams were only in moderate demand, but prices were unchanged, at 11c. per lb. for all weights, large boneless hams, however, being 15c. per lb., and small (9 to 12 lbs.) being 15c. Compound lard ranged from 9c. to 9c. per lb., pure being 12c. to 13c., and barrelled pork sold at \$21 to \$25.50 per barrel, according to quality.

Potatoes.—The market for potatoes showed little change. Green Mountains sold at 78c. per 90 lbs., carloads, on track, and dealers sold them again at an advance of about 5c. Demand was fair.

Poultry.—Supplies were light, and demand was, if anything, less than it was a few weeks ago. Prices continued unchanged, and the market was not at-

tracting a great deal of attention. Choicest fresh-killed turkeys brought 20c. to 21c. per lb., best frozen being 19c. to 20c., fresh-killed chickens 15c. to 16c., and frozen 12c. to 14c. Ducks were 12c. to 14c., while geese and fowl were 10c. to 12c. per lb.

Eggs.—The Lenten season has had a strengthening effect upon the market for eggs, and prices advanced a couple of cents. The production of eggs was fairly liberal, and receipts are keeping up. Consumption increased. Dealers got 30c. per dozen for single cases, and around 29c. per dozen for wholesale lots. It is thought that some American eggs will shortly be brought in if prices go higher here.

Butter.—Further decline took place in the market for butter during the past week, and prices were about a cent less than the week before. Stocks were heavy, being about 49,000 packages, of which 16,000 are held on outside account. Consumption was at the rate of about 600 packages per day in Montreal, so that supplies are sufficient to carry the trade through unless shipments take place to outside sections. New-made creamery was available at 20c. to 21c. per lb., which is lower than for years past at this time of the year. Held stock ranged from 21c. to 21c., according to quality, dairy rolls being around 19c., and tubs being down to 15c. and 18c. Consumption was larger, owing to the lower prices.

Cheese.—Trading continued light and prices steady, at 13c. for colored Ontarios, white cheese ranging from 12c. to 12c., according to quality.

Grain.—There was very little change in prices, and demand was only moderate. Canada Western oats were 50c. to 51c. per bushel for No. 2, carloads, in store; 50c. to 50c. for extra No. 1 feed; 49c. to 50c. for No. 1 feed, or for No. 2 Ontarios, No. 3 being a cent less, and No. 4 yet a cent less. No. 2 peas are 97c. to 98c., No. 2 barley 63c. to 65c., and Manitoba feed barley 58c. to 58c.

Flour.—Further advances were recorded in the market for flour. Manitoba first patents were \$5.80 to \$6 per bbl., in bags, seconds being \$5.30 to \$5.50, and strong bakers' \$5.10 to \$5.30. Ontarios were steady, at \$5.40 to \$5.50 per barrel, for patents, and \$5 to \$5.10 for straight rollers.

Feed.—Bran was officially quoted at \$22 to \$24 per ton, in bags, at which price it is doubtful if much could be had. Shorts were plentiful, at \$24 to \$25. Oil cake and cotton seed were quoted at \$32.50 to \$33.50 per ton, in ton lots.

Hay.—The market was steady, at \$11 to \$12 per ton for No. 1 hay, \$9 to \$10 for No. 2 hay, \$8 to \$9 for No. 3, \$7.50 to \$8 for clover mixed, and \$7 to \$7.50 for clover.

Seeds.—Dealers reported a light demand setting in, and an almost complete cessation of receipts from farmers. Prices continued steady, at \$13 to \$14 per 100 lbs., for red clover seed; \$16 to \$18 for alsike, and \$5.25 to \$6.50 for timothy, in bags.

Hides.—The market was dull and unchanged.

**Chicago.**

Cattle.—Steers, \$5 to \$7.25; cows, \$3.60 to \$5.50; heifers, \$3.25 to \$6; bulls, \$3.40 to \$5.25; calves, \$3.50 to \$9; stockers and feeders, \$3.30 to \$5.30.

Hogs.—Choice heavy shipping, \$6.50 to \$6.60; butchers', \$6.40 to \$6.55; light, mixed, \$6.20 to \$6.30; choice light, \$6.30 to \$6.40; packing, \$6.35 to \$6.45; pigs, \$5.25 to \$6.10.

Sheep and Lambs.—Sheep, \$3.25 to \$6; lambs, \$6 to \$7.75; yearlings, \$6 to \$7.15.

**Buffalo.**

Cattle.—Prime steers, \$6 to \$6.40.

Veals.—\$7 to \$9.75.

Hogs.—Heavy and mixed, \$6.80 to \$6.90; Yorkers, \$6.70 to \$6.85; roughs, \$5.60 to \$6; stags, \$4 to \$4.75; dairies, \$6.60 to \$6.80.

Sheep and Lambs.—Lambs, \$5 to \$7.75.

**British Cattle Markets.**

London cables cattle at 13c. to 14c. per pound, dressed weight; refrigerator beef, 10c. to 10c. per pound.



## Life, Literature and Education.

The recent occurrence of disastrous floods in various parts of Canada affords another reminder of the havoc that is likely to be wrought wherever the forests, which formerly held the waters in check, have been too extensively cleared away. It would appear, indeed, that it is only a matter of time until the problem of afforestation on a large scale must be taken up by the Government. Individual effort can seldom be trusted to carry out anything that cannot promise more immediate gain.

In the meantime, the way in which Great Britain proposes to grapple with the problem is interesting and suggestive. It has been ascertained that, out of 13,000,000 acres of mountain and rough land in Britain, 9,000,000 are available for immediate reforestation, and the suggestion has been made that the setting out of trees to cover this amount will temporarily solve the problem of providing work for the unemployed.

Addressing a young men's club, not long ago, Professor Woodrow Wilson, of Princeton, called attention to the dangers of the modern mania for specialization. It is necessary, he said, that men devoted to certain lines of research, etc., should specialize intensely, but the ordinary man should realize that some degree of generalization is necessary to high-mindedness, and to an intelligent enjoyment of life. The men of to-day are too narrow in sympathies and knowledge, and the men of the immediate future, developed by the present system, are likely to be more so. The whole tendency of the present high-pressure life is to concentrate the attention of men upon the essentials of material success—a condition which can never develop the highest type of humanity. . . . There is much truth in all this. While a certain amount of specialization is necessary to all who have special work to do, it should yet be remembered that material prosperity is not everything, nor even the thing of greatest worth in life. The digression from it that may not "pay" in hard dollars and cents may yet be of infinitely more worth than mere dollars and cents could ever be to one's happiness and usefulness in the world.

Five cases of poisoning, resulting from the drinking of wood alcohol, have been reported from various parts of the Dominion during the past fortnight. Slaughter from this cause is sure to go on among the ignorant and illiterate as long as the word "alcohol" is used in labeling or describing such dangerous commodities as wood and denatured alcohol. Why not change the names altogether, substituting others which may be associated from the beginning with poisonous properties? Human life should surely be worth an effort to introduce so simple a preventive.

### Reformed Spelling.

Editor "The Farmer's Advocate":

I have read with interest the views and remarks of Prof. Dearness on the above subject; and, as there are one or two points upon which he has, in my humble opinion, erred, may I ask for a little space in your popular journal to set forth the same?

Without going into the pros and cons of the question of reformed spelling, I candidly admit, at the outset, that there are many incongruities in our present orthography, but I am exceedingly doubtful whether the "tinkering" of any body of scholars can materially improve it. There must be a basis or system to work upon. What is that system? Is it phonetic? Prof. Dearness says that is quite impracticable, because English, with its half a hundred sounds, cannot be spelled strictly phonetically with an alphabet of 26 letters, otherwise it would be a very good thing. I join issue on this statement. English can be spelled phonetically, but if it were, our language would become very often confused, if not unintelligible. The same symbols or letters would represent words of very different meanings.

If orthography makes a consistently phonetic use of the alphabet, if it restricts every individual symbol to one distinctive sound, and does not continue to write silent letters, it is phonetic.

Take the vowels in "it," "see," "set," "say"—if written i, ii, e, ee, that would be termed phonetic spelling, but if written i, ee, e, ai, as invariably as the other system, it would not be strictly phonetic, because it is not phonetic to make ee the long of i.

With regard to the extract from the British Modern Language Teachers' organ, set forth as an example of the proposed simplification of spelling, space and time will not permit of an exhaustive analysis, so full is it of inconsistencies and incongruities, of fads, whims and fancies; but we can look at and consider a few instances of the new orthography. "Ought," spelled o-u-g-h-t; why not a-ut? The c, pronounced hard in "case," "call'd," "conventional," "contains," "historic," "instruction," "historical," etc. Why not use the phonetic "k"? "Untrue"—why put in "e" when it is not sounded? Why the "o" in "enormous"? Why i-es in "enormities"? Why spell "weighing" with g-h? and so on. I might almost say, ad nauseam.

Is this a sample of what the most eminent specialists in word-science in Great Britain and the United States call "reformation"? Just one word more: I maintain that French is quite as "unphonetic" as English, and more variable, e. g., compare:

J'ai, with I have.  
Tu as, with you have.  
Il a, with he has.  
Nous avons, with we have.  
Vous avez, with you have.  
Ils ont, with they have.

Which is the easier to learn? There is no doubt but that the English is.

With regard to the example of "knave" in English, and "knahe" in German, I think Mr. Dearness will have to allow the pronunciation of

the former word to suggest four letters, not three, as he states, and then we might get "matters ecclesiastical" mixed up with "rascality," which would be very, very shocking.

B. A. OXON.

Middlesex Co., Ont.

### Re Hotel Accommodation.

Editor "The Farmer's Advocate":

I see by "The Farmer's Advocate" of February 18th that the matter of hotel accommodation in local-option towns has been taken up by one of your correspondents. He made the statement that the profits of the bar made up for the loss incurred by furnishing first-class meals, which is not the case; but, owing to a large number of the best travellers, who will not patronize a temperance hotel, the trade is so diminished and irregular that it is impossible for the proprietor to set a decent table. Then, when an extra one or two do happen along, he is not prepared to serve them, and their haughty remarks also add to the hotel's unpopularity.

With regard to your correspondent's willingness to carry bread in a bag and eat it in a fence corner, I might say, this idea may appear noble to him, but in the warmer months of the year we have many such travellers in these parts, and the farmers are not overjoyed at their appearance, either; also, during inclement weather the license hotel affords to such travellers free a more congenial abode than a fence corner.

I hope some of your readers who are interested in this subject will give their suggestions on hotel accommodation. Now, let us hear from those who will treat it in a businesslike manner, and leave those doleful stories about the drunkard and his poor family to the preachers and fanatics. "NEMO."

Lincoln Co., Ont.

### People, Books and Doings.

The Paris Radium Institute, where Madame Curie superintends the extraction of radium from pitchblende and other substances, now possesses 15 grains of radium, valued at \$85,000. The Institute reports 64 cures of surface cancer out of 68 cases treated by the use of this mysterious substance; also many cures of tumors, eczema, chronic rheumatism, and even tuberculosis.

An airship race from New York to Albany will be held under the auspices of the Aero Club of America next autumn. The prize for the winner, donated by the New York World, will amount to \$10,000, and any airship inventor in the world will be permitted to compete.

Iron ore is being successfully smelted by electricity in Sweden.

The Cape to Cairo railway, which will be completed in three years, at total cost of £200,000,000, will be the longest railway in the world, covering a distance of 6,400 miles.

A volume of letters, recently printed, have had an adventurous history. In 1859, a gentleman, mak-

ing a purchase at Boulogne, found that his parcel was wrapped in the sheets of an old MS. These proved to be letters written by Boswell, author of the famous biography of Johnson, to the Rev. W. J. Temple. The rest of the series was recovered from the paper merchant and published, but the edition was sold out in two years, a fire helping to dispose of it, and it was not reprinted until the present year. The letters, which begin when Boswell was a boy of eighteen, and end only a few months before his death, are, like the famous Diary of John Pepys, an interesting illuminant of the time in which they were written, and furnish, besides, an interesting insight into the character of the great biographer. As has been said of them:

Boswell's intense consciousness of himself made his progress like a pageant, and every day was a fresh adventure. If he dined out, he noticed that there were "three sorts of ice creams"; he noticed the handsome maid; he noticed whether people liked him, and he remembered what clothes he wore. He made cows in St. Paul's Church and under solemn yews; he vowed to reform and read the classics; he broke them the day after, and was carried home drunk; and then "all the doubts which have ever disturbed thinking men" came over him, and he lay awake at night "dreading annihilation."

His hopes of preferment were disappointed; he failed at the English bar; and to hearten himself he drank more than ever. But we should underrate the amazing vitality that clung to the shreds of him if we believed that he shuffled out of life a dejected and disreputable figure, by some back door. There was still a twinkle of curiosity in his eye; the great lips were moist and garrulous as ever. But there is a harsh strain henceforward in his chatter, as though some note had cracked with too much strumming.

Many extraordinary stories are told of pictures being picked up for a few shillings or pence, and subsequently being sold for enormous sums. At a recent sale at Christie's a very interesting portrait was put up. It was a dirty-looking canvas, in which there were two large holes, and the portrait was of a young lady in a muslin dress with yellow trimmings, and powdered hair. It measured 30 in. by 25 in., and was said to be a Gainsborough!

The picture had been offered to a Bond Street dealer by an old lady from Worthing, who thought it might be worth £5. The too-knowing dealer, however, considered the canvas so much rubbish, and refused to purchase it. So the old lady took the picture to Christie's, and had it put up for auction. The bidding started at two hundred guineas, and in less than a minute the price reached 9,000 guineas, at which figure it was secured by Mr. Charles Wertheimer. The feelings of the Bond Street dealer who had refused a five-pound note for this masterpiece may more easily be imagined than described.

A Miss Coleman, of Virginia, U. S. A., while hunting for Napoleon relics in Paris, unearthed a Murillo, which had long lain in the back

chamber of an old curio dealer. She purchased her superb find for 10 francs from its ignorant owner, had it skillfully restored, and on her return to America sold it for three thousand dollars, and it was cheap at that price!

As an instance of good coming out of seeming misfortune, there is a case of an artist who was making a sketching tour among the mountains of Spain. Coming to a lonely village, he put up at the poor, dilapidated inn. Something he had said in the bar had aroused the capidity of some of the villagers, and he was attacked in the night, and only succeeded in scaring away his assailants by firing several shots from his revolver. In the morning, he found that one of his revolver bullets had cut through the string of a dirty old painting that hung upon the wall of his bedroom. Taking the begrimed canvas to the window and carefully examining it, he found that it was a genuine Velasquez. He offered the inkeeper 15s. for the canvas, and subsequently sold it for several thousand pounds!

## The Quiet Hour.

### The Great Companion.

The world seeth Me no more; but ye see Me.—S. John, xiv., 19.

Did you ever consider how startling those words of Christ were, and how marvellously they have been fulfilled? This young Leader, whose words were often incomprehensible to His friends, after plainly telling them that the end of their happy, visible companionship with Him was close at hand, declared that though they could not follow Him at once, yet they should have a mysterious vision of His face, which was denied to the world. This promised vision cannot mean the glorious sight of the King in His beauty, which we confidently look forward to as the great joy of the life within the veil, for Christ's disciples are to see Him and to live in His life, while the world around them is blind to His transfiguring light.

Henry Van Dyke says: "No man in the world to-day has such power as he who can make his fellow-men feel that Christ is a reality."

How true those words are. We know men and women who walk through life radiantly—and that is a far more splendid word than "cheerfully." They radiate joy, wherever they are, because they are drinking it in from the never-failing Fountain of Joy, continually. Christ lives in them; they always walk with His hand in theirs, and their eyes on His face. How can they help shining?

Do you think such people are the especially favored ones of earth, and that you can never aspire to anything but a second-rate faith, hope and joy? Surely God loves each of His children with an infinite love, and wants to walk with you as He walked with Enoch long ago. Oh, don't be satisfied with the low ambition which will make your life commonplace and sordid. You can walk with God, if you will—though it may take more than "a little while," before you can be sure that you see Him at all. Remember that it was to disciples who had walked consciously with Him for years that He said, "I will not leave you comfortless: I will come to you. Yet a little while, and the world seeth Me no more; but ye see Me: because I live, ye shall live also. At that day ye shall know that I am in My Father, and ye in Me, and I in you."

Why should we so often lack ordinary common-sense in matters of religion? In every other business we take it for granted that everything is not mastered in a day. If a man is ambitious to become a skillful surgeon, he does not give up in despair because he cannot perform difficult operations after a year or two of practice. If a woman sets out to learn dressmaking or stenography, she does not expect to do wonders in a fortnight. But when anyone makes up his mind to be a real disciple of Christ, letting the world know that he has enlisted under the Banner of the Great Commander, he very often seems to fancy that something is wrong if he hasn't such a glad, clear

vision as a friend of his who has been serving Christ enthusiastically for half a century. I think there would be something wrong—something very different to natural law—if anyone could leap to the height of a saint at a single bound. If you find yourself still in doubt, and yet earnestly wish to feel sure that Christ is near you, the way is open. Speak to Him many times a day, listen to His voice—He speaks to you directly (in your heart) and indirectly in thousands of ways—offer Him your gifts and your service, and persevere. Yes, I will repeat it in capital letters—PERSEVERE. Never get discouraged, but climb on and up.

The way to lose the certainty of Christ's companionship is simple and easy. All you have to do is to crowd Him out of each busy day. Put off the talk with Him until everything else is attended to, as if you considered His presence in your home a matter of indifference. Never take—or make—time to read your Bible. Decide—as Martha of Bethany did—that those who listen to the Royal Guest, instead of busily serving Him, are wasting valuable time. Instead of thinking that those who pray and listen are choosing a "good part," look down on them and condemn them as "idle," saying with Martha: "Lord, dost Thou not care that my sister hath left me to serve alone? bid her therefore that she help me."

I think people often fail to understand the wisdom or justice of our Lord's rebuke of Martha and praise of Mary. Probably all necessary and loving preparation had been made already—our Lord would never have praised idleness or neglect of duty—and now the truest way of showing all due honor and respect to the welcome Guest was to sit quietly down and enjoy His society. He is not the only friend who would prefer some quiet companionship to the ambition which is strong in many people to be "always busy." Besides, it is a great mistake to say that prayer is laziness. It is just because prayer is so difficult that it is often crowded out of the lives of busy Christians. Those who say it is "easy," prove by that very saying that they know very little what real praying means. Jacob wrestled with God one night, determined that he would not cease the struggle until he won a blessing, and he paid for his determination by a bodily lameness. Surely that prayer was not easy.

Our Lord prayed in Gethsemane until

the blood forced its way through the skin.

Of course, these were unusual occasions; but the life of prayer, though full of increasing joy and peace, is certainly not easy. We can walk with eyes on our Great Companion, but it is no easy matter to keep them from being drawn aside for days and weeks together.

It is easy to hurry through a formal prayer in the morning—if we get up in time—and another at night—with the thoughts muddled by approaching sleep. It is easy to do this, and yet go for weeks, or months, without really remembering, much less realizing, that God is really with us and in us. If our prayers are careless and formal, or too often neglected altogether, what wonder is it that we make slow progress in our knowledge of God—the knowledge which is life eternal?

Practice makes perfect. It is folly to expect the soul to grow strong and beautiful without its rightful food and exercise, and the fresh air of the Spirit of God. We are learning the necessity of bodily food, exercise and fresh air, let us not be guilty of starving our more precious souls. We cannot look only at the things which are seen without great loss to ourselves and others.

"Have you and I to-day  
Stood silent as with Christ, apart from  
joy, or fray of life, to see His face;  
To look, if but a moment, in its grace,  
And grow, by brief companionship, more  
true,

More nerved to lead, to dare, to do  
For Him at any cost? Have we to-day  
Found time, in thought, our hand to lay  
In His, and thus compare  
His will with ours, and wear  
The impress of His wish? Be sure  
Such contact will endure  
Throughout the day; will help us walk  
erect  
Through storm and flood; detect  
Within the hidden life sin's dross, its  
stain;  
Revive a thought of love for Him again;  
Steady the steps which waver; help us  
see  
The footpath meant for you, and me."

Let us never feel that the day has passed satisfactorily if the "one thing needful" has been crowded out by less important business—that "one thing needful" being communion with God.

St. Bernard of Cluny, when walking in the cloisters with his brother monks,

would sometimes say to them: "Dear brethren, I must go: there is someone waiting for me in my cell."

There is SOMEONE waiting for us in our room—do we let Him wait day after day in vain? What a difference it would make in our lives if, several times a day, we spent even a minute or two consciously at the feet of Christ. Then we should indeed be like mirrors, reflecting the beauty of the King—the beauty of holiness—then our friends would take knowledge of us that we had been with Jesus.

But is this a practical thing? Will it be a real help in doing the common chores, as well as an inspiration in a crisis? Surely! Ask the boy or maiden, whose heart is singing with a new and wonderful joy, whether the everyday work is not transformed? Joy is a grand tonic, and to walk hand-in-hand with the Great Companion is Joy unspeakable.

The Carpenter of Nazareth came to earth to work with the workers. Work that is too much for one is easy and pleasant for two—especially if One of the workers is God. He wants to be your companion; will you not show Him many times a day that He is very welcome? He says:

"They who tread the path of labor follow where My feet have trod;  
They who work without complaining, do the holy will of God.  
Where the many toil together, there am I among My own;  
Where the tired workman sleepeth, there am I with Him alone."

DORA FARNCOMB ("HOPE").

### At Home.

The rain is sobbing on the wold;  
The house is dark, the hearth is cold;  
And, stretching drear and ashen grey  
Beyond the cedars, lies the bay.

My neighbor at his window stands,  
His youngest baby in his hands;  
The others seek his tender kiss,  
And one sweet woman crowns his bliss.

I look upon the rainy wild;  
I have no wife, I have no child;  
There is no fire upon my hearth,  
And none to love me on the earth.

—Bayard Taylor.



Mr. M. G. De Wolfe's Garden, Kentville, N. S.

Beautiful trees and well-kept grass plots do more than anything else towards making a place homelike and restful.

## With the Flowers.

### Window Boxes, Hanging Baskets and Rustic Stands.

Extracts from an address given before the Horticultural Society of Ontario, by Mr. Wm. Hunt, Ontario Agricultural College, Guelph, Ont.

There is, probably, no feature of floral decorative art that presents greater facilities for the display of intensive and artistic taste on the part of the flower lover—or that can be more universally made use of—than the making and arranging of window boxes, hanging baskets and rustic stands for the outside adornment and brightening up of the environment of the home in summer. This is especially true of homes in cities and towns, where for want of garden space, and for other reasons, it is not possible to have the more elaborate and expensive features of floral adornment. The addition of a few window boxes, rustic stands, etc., will often transform an otherwise unattractive, unpretentious, or, perhaps, positively unsightly building or its surroundings, into a pretty, bright, pleasant and attractive spot. Not only is this true of residences and homes, but also of public buildings, offices, factories and schools.

Around our schools—rural schools, as well as those in cities and towns—a few window boxes or rustic stands would make more bright and attractive surroundings. The plants and flowers would also assist teachers materially by supplying natural subject matter for their botanical and nature-study lessons, as well as helping to develop in the scholars a love for all that is beautiful in the floral world, and to create an interest that would doubtless continue to increase and develop long after the scholar had left the precincts of the school.

#### WINDOW BOXES: HOW TO MAKE.

A window box does not necessarily require to be of an elaborate or expensive nature, so long as it is strong enough to stand the pressure of the weight of soil used, and resist the efforts of gales and winds to dislodge it from its position. A plain wooden box, made of one-inch dressed pine, of the following dimensions, will be found very useful, inexpensive, and effective.

Length of box (over all) should be about that of the window itself, not including the window frames. The two or three inches width of frames on each side of the window will allow for covering the box with cork bark, or other material if required, of which more will be said later on. The dimensions given here can, of course, be changed to some extent so as to suit the style of window, but care must be taken not to have the box too large, so as to be heavy and unwieldy.

Width of box at top (inside measurement) ..... 9 to 10 inches.  
Width of box at bottom (inside measurement) ..... 8 to 9 inches.  
Depth of box (inside measurement) ..... About 7 inches.

The difference in the width of the top and bottom of the box will allow the front to slope outwards from the bottom up, thus avoiding the common box-like appearance, which a perfectly upright front board would leave. This method also allows the drooping varieties of plants to hang clear of the box, thus adding to the effect, as well as being beneficial to the plants. The bottom of the box underneath should have three or four thin cleats of wood one inch in width and half an inch in thickness nailed to the outside of bottom, to allow of free drainage, and prevent the rotting of wooden sills. Some half-inch holes should be bored about six inches apart in the bottom, for drainage purposes. The box should be painted outside, and two inches down from top on inside. A dark, dull, olive-green color is best for this purpose. A small iron staple or screw-eye should be placed on each end, near the front top corner, to support the box when placed in position. A piece of strong wire, or an iron hook, fastened to the screw-eyes or staples placed in the window frames should be

used for this purpose. The box should have at least three inches bearing on whole length of window sill. A piece of galvanized sheet iron may be placed on sill to prevent the sill from rotting.

A box constructed as stated will, with ordinary care, last for nine or ten years if given an occasional coat of paint.

A more elaborately constructed box can be made, but it is much better for the successful growth of the plants to have a plain box as described, covered with virgin-cork bark, or even the bark of some of our native trees, nailed on firmly. Flat pieces of bark are best for covering window boxes. It may be necessary to run a saw cut partially through the cork bark lengthwise on the inside, to make it more pliable, and to make it fit closer. The bark of the hard maple, ash and walnut are particularly well suited for this purpose, especially if taken from a recently-felled tree, when the bark is pliable and easily placed in position. The covering of bark—or bark and moss—does not only gives the box an artistic and rustic-looking appearance, but also helps to prevent the soil from drying out as quickly as it does in a plain wooden box. Covering the outside with small pieces of split cedar nailed on has a good effect from an artistic point of view, as well as preventing the soil from drying out too rapidly.

#### SOIL FOR WINDOW BOXES.

A good rich, loamy compost, about two parts loamy potting soil and one part of well-rotted barnyard manure, with a little bone meal, makes a good soil for window-box plants generally. It is of no use expecting good results in window boxes if poor soil is used in them. I have found it a good plan to put a sprinkling of bone meal or a thin one-inch layer of well-rotted barnyard manure spread over the soil about an inch from the bottom of the boxes. This serves as a reserve fertilizer when the balance of the soil has become exhausted.

#### WHEN TO FILL WINDOW BOXES.

Window boxes should not be filled until it is about time to place them in position. In fact, I prefer filling them after they are placed in position if possible. Well-grown and well-hardened plants of a good size and appearance, and the box filled at the time of placing in position, will give far more satisfactory results for the season than a box filled earlier that soon gets past its best, even if the changed conditions from indoors to outdoors does not at once have a disastrous effect, as it often does on the plants, unless shaded for a few days, or placed in a well-sheltered position from sun and wind. Good rich soil, large, well-grown and hardened plants are essentially necessary to have a successful window box. About the first week in June is a good time to place window boxes in position.

#### HOW TO FILL AND ARRANGE PLANTS IN A WINDOW BOX.

No other drainage is necessary beyond the holes in the bottom of the box. Fill in soil sufficient to fill box about one-third full. Stand the plants—after they have been knocked out of the pots they are in—in the position they are to occupy, and make sure that you have them in their proper positions before filling in any more soil. Place the tall plants at the back, and place the drooping and trailing plants in front and ends of box; then fill in any open or bare-looking spots between with medium-height plants. In placing the plants in position, due consideration must be given to height and habit of plants, as well as color effect, and to having the plants arranged so that height, density and color may be properly balanced and harmonized, without their presenting a stiff, formal appearance. The surface soil of the ball of earth on the plants when placed in the box should be about an inch or more below the top edge of the box. When you are satisfied the plants are properly set and arranged, fill in the soil and pack it moderately firm around the roots of the plants, filling in soil to within an inch of top of box. Give water at once sufficient to moisten all the soil. Avoid over-watering afterward for a few days at the roots until plants are established in their new quarters. A sprinkle of water overhead, and the plants shaded for a day or two, will be beneficial, when

first planted. When growth has well commenced, water should be given freely every day unless in very wet weather. Give water so that it runs out through the holes in bottom of box every time the plants are watered. Toward the end of the season some liquid fertilizer may be given the plants. An application of fertilizer as used for pot plants once a week, from middle of July until the end of the season, will be beneficial, or a top dressing of rich soil may be applied about the end of July to advantage. In the autumn many of the plants can be taken out, potted, and placed in the window for winter. It is seldom that the box is of any use for indoor decorative purposes without being refilled. Window boxes filled with ferns, bulbs or plants in the fall look very nice, however, in a window in winter.

#### BEST POSITION FOR BOX.

Any aspect rather than a directly south aspect is best for a window box, a north or east aspect being the best. If the windows face the south, the boxes should be shaded by an awning for a few hours in the hottest part of the day.

#### POT PLANTS IN WINDOW BOXES IN SUMMER.

Plant lovers, especially in cities and towns, are often at a loss to know what best to do with house and window plants in summer, having no space out of doors perhaps to stand the plants in the shade for a change and rest, as is customary with those who have facilities for resting plants during the summer in shaded positions out of doors. By placing the box outside of an east, north or west window, standing the pots in the box, arranging the plants properly for effect, and packing moss around them, almost all house and window plants can be very much improved in appearance, with but little care and attention. The moss prevents a too rapid evaporation and keeps the roots of the plants cool and moist. Common moss from the bush, or Sphagnum moss can be used for this purpose. This is a much better plan than standing the pots on window sills and exposed verandas, where the sun and wind compels constant and copious waterings, the plants oftentimes suffering badly, even when attended to regularly, in the matter of watering.

#### VERANDA BOXES.

These are made in a similar manner to window boxes, differing possibly in shape slightly, so as to suit the requirements of the position they are to occupy. If used on floor of veranda, it is well to set the boxes in large trays or pans made of galvanized iron, to prevent rotting the floor, as well as for cleanliness.

#### HANGING BASKETS.

The ordinary earthenware hanging basket should have the bottom constructed so as to form a saucer, in order to avoid the troublesome, unpleasant and dangerous operation of either lifting the basket down, or of flooding and damaging the floor of the veranda: every time they are watered. Several potteries have adopted the style mentioned, of having a saucer as a part of the basket, but in most specimens that I have seen, the saucer is rather too narrow and shallow to be of the best possible use. The holes through the bottom of the basket into the saucer, placed there for drainage purposes, are also often too small and too few in number to fully serve the purpose for which they are intended. For a lawn and exposed positions, I prefer hanging baskets made of wire. As a rule, the ordinary wire baskets sold are not made large or deep enough to be serviceable. The wire baskets should be lined at time of filling with thick wads of moss placed around the basket with the green side outward. The soil and plants can then be filled in the same as when using an earthenware basket. The moss helps to conserve the moisture in the soil, and prevents a too rapid evaporation. Plants succeed better in wire baskets than in earthenware ones.

#### RUSTIC STANDS.

These are possibly one of the most effective and easily obtained features of lawn decoration. A rustic stand can be made up of the coarsest and commonest materials, if a little artistic and original taste is made use of in connection with their make-up. A tub, part of a barrel, or a box of suitable strength and

size, can be transformed into a really pretty and effective rustic adornment with a few pieces of common lichen or moss-covered pieces of bark from our native trees nailed around them, or can be covered with cork bark, if something more uncommon or elaborate is required. Small pieces of cedar saplings, split in two, with the tops pointed so as to represent a rustic picket fence and nailed on the tubs, also make a pleasing and effective stand for the lawn. One of these rustic tubs or boxes placed on a piece of round timber of pine or any native tree, with the bark left on so as to look as natural as possible, will make a very effective and pleasing object when filled with flowering and trailing plants. The piece of timber used should be sunk into the ground a little, if not large enough to stand firmly of itself. The box or tub also would be better if fastened down to the stand with a piece of wire in two or three places to prevent it being blown or pushed over. Fossil stones, or large stones of any kind, can be used very effectively as stands for above purpose. An old hollow trunk of a basswood or other tree, about two feet six inches in height, also makes an effective rustic adornment when filled with good soil and plants. One of these last named, filled with scarlet salvia and trailing plants, makes a most conspicuous and pleasing object on the lawn in summer-time.

#### PLANTS FOR FILLING WINDOW BOXES, ETC.

The main point to be considered in selecting plants for any of the before-mentioned purposes is their suitability for the position they are to occupy as regards a sunny or shaded position. As a rule, plants that succeed in a sunny position will succeed to some extent in a shaded position, with poorer flowering results possibly. Plants suited particularly for a shaded position will not, however, succeed well in a burning sunny position, even with the best possible care and culture.

Another point in the selection of plants is not only to have good-sized plants, but to have plenty of them, so as to furnish the box well at once, planting so that there are no bare-looking spots when finished. To have a bright and pleasing effect also, select chiefly bright light-colored foliage plants, as well as a preponderance of the lighter shades and colors of flowering plants. Brightness is one of the main points to be considered in the effectiveness of window boxes, baskets and rustic stands.

The following list of plants includes most of the varieties that can be effectively used for sunny or shaded position:

#### TALL PLANTS FOR SUNNY AND SLIGHTLY-SHADED POSITION.

Dwarf Lantana, Cannas, Coleus, Salvia, Irisene, Geraniums, Ivy-leaved Geraniums.

#### LOW-GROWING AND TRAILING PLANTS.

Vinca Japonica, Vinca minor (Periwinkle), Nasturtium, Othonna crassifolia, Annual and perennial Sweet Alyssum, Dwarf Agrotium, Nepeta or Glechoma variegata (Creeping Charlie), Centaurea gymnocarpa (Dusty Miller), Mesembryanthemum roseum, Petunia, Verbena, Mme. Saleroi, and other fancy geraniums, Gnaphalium lanatum, Gazania splendens, Perennial Tropaeolums.

#### FOR VERY SUNNY POSITIONS.

Cacti, Echeveria, Agaves, Sanseveria zeylanica, Aloes and other succulent plants can often be made use of.

#### TALL PLANTS FOR SHADED POSITIONS.

Palms, Dracenas (Cordylines), Cyperus (Umbrella Plant), Fuchsias, Begonias, Aspidistras, Araucaria (Norfolk Island Plant), Ficus elastica (Rubber Plant), Asparagus plumosus, Pandanus Veitchii, Pandanus utilis, Crotons.

Sweet Peas, Convolvulus (Morning Glory), Tropaeolums, Cobea scandens, and Climbing Nasturtiums can also be used very effectively in some positions as a background, as well as forming a shade for the window.

#### LOW-GROWING AND TRAILING PLANTS FOR SHADED POSITION.

Lobelia Cuphea (Cigar Plant), Nasturtium, Tropaeolum canariensis, Tradescantia (Wandering Jew), Senecio or German Ivy, Lophospermum scandens, Cam-

panula isolepis, Convolvulus minor, Fat-fugium (Leopard Plant), Anthericum variegatum, Asparagus Sprengeri, Festuca glauca, Scirpus riparius.

Many of the plants mentioned, such as Salvia, Ageratum, Petunia, Verbena, Centaurea, Cobea scandens, Lobelia and Tropaeolum can be grown from seed. Sow the seed indoors about the end of March or early in April, and grow on indoors until end of May or early June. Sow Nasturtium, Cobea scandens, and Tropaeolum seeds, two or three seeds in a small pot, as they do not transplant very well. There is probably no one kind of plant better suited for window boxes than both the dwarf and tall nasturtiums. They are indispensable for this class of plant decorative work. Seeds of these last-named, sown in the window box about end of May, will of themselves make a pleasing effect in a box or stand, but are later in flowering.

In concluding this paper, I feel it would not be out of place to mention that artistic and rustic features of landscape art are features that we are deplorably deficient in and around our city and rural homes. Those who have travelled in the older lands can testify to the bright, pleasing and restful appearance the rustic and floral adornments, in the shape of summer arbors, pergolas, arches, etc., have in adding to the charm and attractiveness of the lawns and flower gardens of the Old Land. It is pleasing to see, however, that our people are rapidly taking up and adopting these and similar features of decorative art for making our Canadian homes bright and attractive, features that not only help to make an ideal home in the truest sense of the word, but that will also assist materially in promoting the happiness and contentment of our people, as well as assisting in developing the best type of citizens throughout our country.

## The Ingle Nook.

### Conveniences for the Housewife.

In the January 14th number I notice an article on conveniences for the housewife. Well, to be honest, is it not a great deal our own fault that we are lacking in not having more really necessary labor-saving conveniences? Here is just what I think would be a true solution of that oft-repeated problem, "No help to be got for love or money." The Women's Institute is supposed to lend aid in enlightening and giving verbal instruction, which, if received and acted upon, will relieve the monotony of farm life, but it is not the question of knowing how to do more in household science, but to get the labor done. I will just give here a clipping from the Toronto Globe, which echoes my ideas:

#### HELP ON THE FARM.

"It is not social life a farmer's wife needs, it is help," declared the over-worked wife of a farmer at a gathering of farmers in the Western States. "Help is so scarce on the farm," she went on, "if anyone wants to do something for the farmer women, let him start some institution that will do the cooking in the country. Yes, I mean it, washing and cooking and the sewing,—these lightened on her shoulders, even to the extent that the city housekeeper has them, the farmer's wife might be able to do the rest herself. She might have time to get a taste of the social life that we hear so much of as a need of the farm. A little leisure for reading, music, or even time for that of all healthful pleasures, garden work, would make life a different thing for the woman who becomes first a drudge, then a worn-out machine, worked constantly and never oiled."

Where domestic help gives out, co-operation is the idea that naturally succeeds, and the suggestion of co-operation in some way seems to have taken hold of the minds of the women on the farms. Some kind of a cooking center, some kind of a washing center; these things are not impossibilities. In these days of domestic research and quick transmission, automobile wagons might cover long distances and pass many farms, in summer, at least, when the farmer's wife is at highest pressure. In the meantime, the trend of life amongst our young women is so largely away from domestic service that the part of wisdom for the rural housekeeper is to give up hope of

the nice available handmaiden, and prefer ingenuity to combine forces and the always available machinery."

#### ONLOOKER.

What do you think about this, readers? If you believe in co-operative centers for such work as baking and laundering, can you offer any suggestion as to how such places may be established?

#### A Suggestive Letter.

Dear Dame Durden and Chatterers,—I thought I would just have to write and tell you how much I enjoy reading the letters from the "Nookers." I suppose I have been very selfish in not ever writing even one word of appreciation before. I, like "Jack's Wife," have a very busy life of it. Sometimes I do so wish for a little more leisure time in which to keep more in touch with the times. But, after all, what is worth more than a happy, contented family life? I'm afraid there are a good many of us who lay too much stress upon our work,—everything must be in just "apple-pie order" each night before we retire, when we might a great deal better be enriching our minds with good literature, or even spending an hour or so in games with "Hubby" and the children.

Now, I think each one who has entered the circle here should not let more than one month pass without sending in at least one letter—suggestions, recipes—or even just a kind greeting to the others.

Just a suggestion to mothers of small boys of from two to four or six years

which has been used quite a few years. It has been kept clean with stove polish, but it rusts in the summer-time, though I have tried both coal oil and lard. Would like to know how this aluminum paint would work on it, or would it, in case of very hot fires, create an odor?

I have a Chatham kitchen cabinet which I find very handy, and would not be without for a great deal. The top of it is all covered with zinc. Would like to know of something with which to clean it. I have tried soapsuds, bath brick and whitening, but have failed to gain any satisfactory results.  
Lincoln Co., Ont. MRS. I. C. N.

Scientific American gives coal oil, followed by black lead and vigorous polishing as a rust-preventive, but lays emphasis on storing the stove, or whatever the metal may be, in a DRY place. London Engineer gives the following method: "Dissolve 1 oz. camphor in 1 lb. melted lard, and remove the scum. Mix as much black lead with the lard and camphor as will give it an iron color. Clean the machinery, etc., well; smear with the mixture; after 24 hours rub off; clean and polish with soft cloth."

A friend suggests that varnishing the sheet iron with stovepipe varnish might prevent rust, although the disagreeable odor which always comes from pipe varnish would have to be expected. . . . In any case, I should think keeping the stove in a dry place would be essential. I would not use aluminum paint if I were you; all that I have seen is a silvery color, suitable enough for steam radi-



A Modern Living Room.

Note the short curtains, bare floor, with small rugs, and plain walls. Published by permission of House Beautiful.

of age. Never buy cheap material for their little every-day suits. A heavier, stronger material will outwear and outwash the cheaper by a half-dozen times, and it takes just as long in making, and just as much thread and trimming for the poorer material as it does for the better quality. My experience is that Galatea is the very best material for making up these little suits. Even the little girl's one-piece dress of this material cannot be beaten for wearing and washing.

Would some reader be kind enough to give me a reliable recipe for lemon biscuit? "HUBBY'S WIFE."  
Norfolk Co., Ont.

Lemon Biscuits.—I find the following recipe in my scrap-book. It is recommended: Three cups white sugar, 1 cup melted butter, 1 pint sweet milk, 2 eggs, 5 cents worth oil of lemon, 1 oz. ammonia, a pinch of salt. Flour to make dough. Mix the ammonia in the milk. Roll the biscuits thin and cut into cookies.

#### Care of Sheet-iron and Zinc.

Dame Durden,—As I am an interested reader of "The Farmer's Advocate," I thought I would bring my little troubles to the Ingle Nook, along with the rest. I have an air-tight sheet-iron stove,

ators, etc., but scarcely for a sheet-iron stove.

To clean the zinc, wash with soap and water, then rub with raw potatoes. If this is not effectual, rub with a mixture of 1 part sulphuric acid and 12 parts water. Leave the liquid on for a few seconds, then rub with a cloth.

#### Cockroaches.

Dear Dame Durden and Chatterers,—I cannot refrain any longer from writing to the Nook. I look forward with such interest to what the Chatterers have to say, and must say I have been greatly benefited. It is just two years since I came to the farm to make my home. At first I thought it very lonesome, as I knew nothing about farming, and was almost ready to faint when my husband and the man would come in from the stable, but I have got used to it now, and enjoy going to the barn to see the cattle and horses, and hunting the eggs, especially when they are 35c. a dozen.

I noticed "Holly" was asking about water glass. I never used it. Last fall I packed twelve dozen eggs in oats and some in salt, small end down, and never found a bad one. I am sure Dapple Grey will be glad that she is among the lucky ones to have the rural delivery, but she will be more delighted when she has the telephone. We have the 'phone,

but not the rural line, as we are not a half mile from town. A telephone is something I think should be in every home. We have found it a great convenience, and have taken a lot of pleasure out of it too. Now, I have taken up so much space you will not want me to come again. But I wonder if any of you can tell me what will destroy cockroaches?

Thanking you in advance for your space, and also for your many helpful hints, I remain,

A friend of the Chatterers,  
Waterloo Co., Ont. "BONNY."

Powdered borax and gasoline are recommended for expelling cockroaches. Wash woodwork with gasoline and water, about equal proportions, about once a week, letting it run into every crack and crevice. Finally wipe dry and sprinkle dry borax about. There must be no fire in the range, and no lamp burning, and the windows must be open while you are using the gasoline. Repeat process until the cockroaches have been driven away.

#### Baked Beans.

Dear Dame Durden,—For those who are fond of beans the following recipe, I think, will be appreciated. We have a large family of boys, and they are always pleased to see a large panful of beans cooked this way:

Cook a quart of beans in the ordinary way till half done, then drain, and add fresh water. Cook until nearly done, then turn into a frying pan, or other suitable vessel, season with salt and 1/2 teaspoon of Cayenne pepper. If the beans are dry, add a cup or two of water, also a cup of tomato catsup, chili-sauce, or canned tomatoes, a tablespoonful of molasses; or, in place of that, a spoonful of sugar. Mix slightly, to incorporate ingredients, then place on the top several pieces of sliced pork. Place in oven, and bake an hour or more if desired. They are better served hot from the dish in which they have been baked.

Try them, and I do not think you will be disappointed. I can send a good recipe for eggless fruitcake, if anyone would care to have it. HELENA.

Lambton Co., Ont.  
Many thanks for the recipe. We shall be pleased to have the other one.

#### Packing Eggs.

Dear Dame Durden,—I am like so many of your readers, a sponge, absorbing all I can hold, but now I have come to the help of "Holly," who has been putting down eggs with water glass. I have done so, but no longer. The cost I found to be about two cents a dozen—far too high, I considered, though the eggs kept beautifully.

There is a difference in the strength, but even so, one to four must be very strong. One to eight or ten, or just so that the egg will float, is the proportion, putting the eggs in perfectly fresh, adding water as it evaporates, and keeping the egg below with a plate or other weight.

However, as Dame Durden suggests, or even without the lard, if kept in a cool, dry place, is usually satisfactory.

My method at present is to dip in boiling water for twenty seconds, then put in bran or oats, and keep cool and dry.

Really, I must, on this my first call, express appreciation of Dame Durden's efforts to make the Ingle Nook helpful.

Coming from town to a farm, I have scanned the papers and magazines for helpful hints, and have not been disappointed.

Go on, Dame Durden, and if we are inclined to be too much like a sponge, squeeze us occasionally. HELENOS.  
Brant Co., Ont.

By the way, I came on a new way of packing eggs the other day, viz., to brush each egg with melted paraffine, then pack, small end down, as usual. The idea, of course, in all of these methods—lard, boiling water, paraffine, etc.—is to exclude the air, which is otherwise able to penetrate the porous shell of the egg. May I squeeze you as often as I like?  
D. D.

### Our Scrap Bag.

In planning the new house be sure before all things that it is arranged for health and convenience. See to it that the cellar is dry and light; have verandas, but not where they will shut out the sunlight; look well to the ventilation system; and don't have a pantry clear across the kitchen from the dining-room door.

Paint is one of the best protectors against germs and insects.

Before papering or painting walls, fill all holes, etc., with plaster Paris or building cement.

When papering walls remember the following:

A white wall reflects 50 per cent. light.  
A red paper reflects 15 per cent. light.  
A light buff or yellow reflects 45 per cent. light.  
A dark brown reflects 12.5 per cent. light.

A light apple green reflects 40 per cent. light.

A dark green reflects 15 per cent. light.  
The plainer the paper the better for nerves and eyesight.

Do not use very cheap wall paper. If you cannot afford a fairly good paper, use paint, alabastine, etc., until you can afford it. Very cheap papers are likely to be either colored with aniline dye, which fades, or to have their color set by the use of some arsenical solution. Another point in papering is also worthy of notice: Never use glue in paste if you want a sanitary wall, and, above all things, do not paste one coat of paper over another. To remove the old paper, simply mop it all over with hot water and leave it there, repeating the washing process if necessary, until the paper is soft enough to pull off; then wash the paste away and scrape off any bits of paper that may adhere with a knife. If kalsomine must be removed before papering, simply mop again and again with hot water.

### HOUSEHOLD SAUSAGE.

For every 55 lbs. lean and fat pork chopped fine mix together 1 lb. salt, 6 ozs. best black pepper, 1 teaspoon of Cayenne pepper, and a handful of powdered dried sage. Mix these together, then work thoroughly through the meat. If you wish to stuff the mixture in skins empty the intestines, turn inside out and wash well. Soak in salt water a day or more, wash again, cut into convenient lengths and scrape on a board, first one side, then the other, until they are perfectly clean and clear. Rinse again, and throw into clean soft water until used.

For winter use, sausage may be packed in stone crocks, with 2 inches of boiling lard run over it; or it may be packed in clean muslin bags, dipped in melted lard, and hung in a cool place. For summer use, however, it is better to can it. Make it into small cakes and cook about two-thirds enough for the table. Pack while still hot into sterilized cans, fill up with boiling lard, and seal at once. When cooking in the summer it will be more delicate if all the fat is poured off after it is fried, and a little cream poured over it and boiled a moment.—Sel.

### MAKING CHEESE AT HOME.

Take 100 lbs. milk for each cheese. Warm to eighty degrees, then put in 1 tablespoonful rennet, or one rennet tablet dissolved in warm water. Stir thoroughly, and keep the milk warm by covering it with a blanket. In an hour or less the curd will be made. Cut it down into small pieces, about an inch square, with a long knife. Draw off whey and leave curd to harden a little, salt to taste, then dip into the bottomless mould which has been placed on a board and arranged with a piece of cheesecloth in it to hold the curd. Heap the curd up, and as it settles press down with a round board made to fit and weighted down. When ready, in about 20 hours, remove from mould and carefully remove the cloth, sewing a fresh strip around with a border left about 2 inches top and bottom, to be plastered down on the cheese with butter. Set the cheese on a board to ripen, rub well with fine salt and turn the cheese once every day for 10 days, then turn every other day. Rub with butter several times to prevent cracking, or after two weeks paint with hot paraffin. Keep the cheese in a rather moist place, and scrape off mould whenever it appears. The

cheese will be fit for use in two months. Will keep a year if buttered occasionally and stored (after it is fully ripened at the end of two months) in a dry place.—Sel.

### "The Farmer's Advocate" Fashions.



6249 Coat with or without Standing Collar, 34 to 42 bust.

6249.—The half-fitted coat is always a becoming one, and is a pronounced favorite, while it promises to be even more popular with the coming of the spring.

The quantity of material required for the medium size is 5 yards 27, 3½ yards 44, or 2½ yards 52 inches wide, with ½ yard 21 inches wide for the bands.



6282 Girl's Box Plaited Dress, 6 to 12 years.

6282.—The quantity of material required for the medium size (10 years) is 6½ yards 24, 4½ yards 32 or 4 yards 44 inches wide, 1½ yards 32 inches wide for collar and belt.

The above patterns will be sent to any subscriber at the very low price of ten cents per pattern. Be careful to give Correct Number and Size of Patterns Wanted. When the Pattern is Bust Measure, you need only mark 32, 34, 36, or whatever it may be. When Waist Measure, 22, 24, 26, or whatever it may be. When Misses' or Child's pattern, write only the figure representing the age. Allow from one to two weeks in which to fill order, and where two numbers appear, as for waist and skirt, enclose ten cents for each number. If only one number appears, ten cents will be sufficient.

Address: "Fashion Department," "The Farmer's Advocate," London, Ont.

### BOOK REVIEW.

MORLEY'S LIFE OF GLADSTONE.—Every home should possess a library composed, not only of books relating to the special branches of farm work pursued, but other standard volumes, to which additions can be made from time to time, according to the tastes and means of the family. Would not many readers of "The Farmer's Advocate" be glad to secure a beautiful two-volume copy of that incomparable literary and historical work, the life of William Ewart Gladstone, statesman, orator, reformer, churchman,

scholar, and author, unquestionably one of the greatest characters of the Victorian age, written by his friend, the torian age, written by his friend, the prince of biographers, John Morley, now Viscount Morley of Blackburn? Originally published in three large volumes, at a cost of two guineas (\$10), Lloyd's popular edition in two handy volumes (1,514 pages), at a price within reach of everybody, is one of the literary events of the season. By special arrangement with the publishers, we are enabled to procure for our readers who desire this masterpiece, the two volumes for \$1.75, cash, postage prepaid; or by sending us three new subscribers to "The Farmer's Advocate."

If you are interested in obtaining a classic set of the only great life of that peerless British statesman, Gladstone, this is the opportunity of a lifetime. We make the offer totally for the benefit of our readers; as the price quoted will barely cover our outlay.

### The Roundabout Club

#### Art in Rural Districts.

Editor Literary Society:

While "One in Earnest" is wisely suggesting the study of literature by people of the rural districts, allow me to add a few words regarding the sister study, "Art."

The majority of the people of the rural districts seem to look upon "Fine Arts" as something beyond them. They consider their environment too commonplace to give an interest to art, not realizing that "Idealizing the Commonplace" is one of the greatest arts. Tennyson understood this, and we enjoy his numerous word-pictures. How well-chosen is the subject of this little sketch from "Dora":

"She sat the child upon a mound,  
And made a wreath of all the flowers  
That grew about,  
And tied it round his hat."

Some great artists have chosen their best subjects from farm scenes and rural life.

A painting of a bushel basket of onions, tumbled out on a barn floor, won a medal at a recent exposition. The artist, through training, sees beauty which others pass by.

Few of us in rural districts see a beautiful picture in "cattle in the shade of great spreading trees, or grazing on the hillside"—or the "Old Horse Drinking at the Trough." How many note the colorings of vegetables, fresh and crisp from the garden? A little time to study of art, a knowledge of picture-making, and a new interest would be aroused in every thing and every place that would lend itself a subject. Then, too, in the country one has the advantage of watching Nature when she is picturemaking. In her hazy moods—the lowering clouds and purple distances. Then streaks of sunshine, and the shadows change. The glorious autumn days, when her colorings are most brilliant, and the maples look as though she had thrown her palette at them.

In the study of art, picturemaking is not all; one learns harmony of color, which leads to better taste and selection in dress, house-furnishing, etc.

Then, grouping and composition give a training that is very helpful. Methinks I hear some honest son of toil deride the study of art in rural homes, "Leave that to the city folk"; but I say—not so! It broadens the life of the country girl. She will learn to idealize the commonplace, and life will not grow humdrum. And the boys, won't they be interested? Try them and see. I've had the roughest set gather when I've been outdoors sketching, and their natures fairly mellow as they watch the picture grow. I understood their "Gee!" but who would have thought that old fence and them trees would make such a pretty picture?"

I am a farmer's daughter, and daily practice the ordinary arts, but there are evenings and odd hours left in which to enjoy fine art and literature.

In conclusion, will say to those of the rural districts: Take an interest in art, study nature in all her moods, and experience the inspiration.

PUSSY-WILLOW,

Middlesex, Ont.

It is with unusual pleasure that we publish the above letter. To the uninitiated it may seem a strange thing that one man hates the country and lives in it on sufferance, only awaiting the opportunity which may enable him to get out of it, whereas another loves it, and is perfectly happy to live in it, with very little, perhaps, of what the world considers pleasure. In nine cases out of ten—we are sure we do not overrate the proportion—the explanation is that the former can see the beauty and interest in commonplace things, whereas the latter cannot. The former, whatever his work may be, is poet, and artist, and perhaps musician and scientist in one, seeing pictures, hearing symphonies, finding interest and wonder everywhere; the latter seeing nothing but raw material to be worked up, possibly into so much money, in wood or field, finds nothing but monotony in the life and drudgery in the work.

The faculties that make for appreciation of the rural life may, of course, be naturally characteristic; yet they may also be cultivated. How, Pussy-Willow has in some degree intimated. We hope to hear more of this subject. We cannot all learn to paint, but we can all train ourselves to SEE.

As an illustration of the truth of Pussy-Willow's observation, that some artists choose their best subjects from farm scenes, we may note that the finest picture shown at the recent exhibition held by the Canadian Art Club at Toronto, was Horatio Walker's "Plowing—the First Gleam," showing a plowman at work on a hillside at early dawn. Among others whose inspiration was drawn from the same source were Homer Watson's "Pioneers Crossing a River"; Franklin Brownell's, "The Winnower,"—an old man in a blue shirt, sifting grain; and Mr. Walker's "Indian Summer—Shepherd and Sheep."

### Should People of Opposite Tastes and Temperaments Marry?

Editor "Roundabout Club":

Being interested in the subject to be discussed, I give my opinion that the happiest marriages are those between persons of different tastes and temperament.

As there is a vast difference between tastes and temperament, we will deal with them separately. Many persons of similar tastes love each other, and make happy marriages, but this is due, not nearly so much to the similarity of tastes, as to fitness in temperament, and other respects. While the same tastes and pursuits are naturally the means of bringing young people together, they alone would not be sufficient for love.

No doubt a husband and wife of like tastes find great pleasure in following their favorite pursuits together, but on the other hand, a couple who truly love, take an interest in each other's pleasures and occupations, often finding fields of interest never dreamed of before; thus both are broadened in mind and habits, and more profit and enjoyment are found in life.

Many excellent people are exceedingly narrow in their opinions, indeed most of us find it difficult to see things from other people's point of view. We all are acquainted with middle-aged men and women, who have never married, and who have become so set in their ways and ideas, that they have no toleration for others who hold different opinions. If these people had married others of exactly the same tastes and habits as they themselves had, they would have become more narrow and intolerant than ever; while if they had married those who held opposite views to theirs, their whole outlook would have broadened.

While there may be, and are, happy marriages between persons of similar tastes, there are few, if any, between those of similar temperament. Husband and wife, who at first were totally different, as years go on grow more alike. Deficiencies of character in one, are supplemented by the other. Their children are well-balanced and intelligent. The following quotation from a well-known medical work, adequately expresses my meaning: "The cause of the wretchedness attending many marriages may be traced to a too great similarity of organization, ideas, taste, education, pursuits and association, which similarity almost invariably terminates in domestic unhappiness. The husband and wife should be as different as the positive and

negative poles of a magnet. When life is begotten under these circumstances, we may expect a development bright with intelligence."

Young people are instinctively drawn towards those of completely different character. If we stop to think, we can recall numberless instances of men who have loved women totally different to themselves in every way, and surely our instincts, when subject to reason, are safe guides.

In all the essentials of religion, however, husband and wife should think alike. In small points, and matters of form, which are too often given undue importance, it is as well to differ. There will be less danger of either becoming narrow; and narrowmindedness in religion is the most common, as well as the most objectionable form of narrowmindedness. After all, charity, the greatest essential of a Christian life, is the very highest form of broadmindedness. G. H. S.

**Our Literary Department.**

**Study No. 3.**

**XI.**

For pleasant is this flesh;  
Our soul, in its rose-mesh  
Pulled ever to the earth, still yearns for rest:  
Would we some prize might hold  
To match those manifold  
Possessions of the brute—gain most, as we did best!

**XII.**

Let us not always say  
"Spite of this flesh to-day  
"I strove, made head, gained ground upon the whole!"  
As the bird wings and sings,  
Let us cry, "All good things  
"Are ours, nor soul helps flesh more,  
now, than flesh helps soul!"

**XIII.**

Therefore I summon age  
To grant youth's heritage,  
Life's struggle having so far reached its term:  
Thence shall I pass, approved  
A man, for aye removed  
From the developed brute, a God though in the germ.

**XIV.**

And I shall thereupon  
Take rest, ere I be gone  
Once more on my adventure brave and new:  
Fearless and unperplexed,  
When I wage battle next,  
What weapons to select, what armour to indue.

**XV.**

Youth ended, I shall try  
My gain or loss thereby:  
Leave the fire ashes, what survives is gold:  
And I shall weigh the same,  
Give life its praise or blame.  
Young, all lay in dispute; I shall know,  
being old.

**XVI.**

For, note when evening shuts,  
A certain moment cuts  
The deed off, calls the glory from the grey:  
A whisper from the west  
Shoots—"Add this to the rest,  
"Take it and try its worth: here dies  
another day."

**XVII.**

So, still within this life,  
Though lifted o'er its strife,  
Let me discern, compare, pronounce at last,  
"This rage was right if the main,  
"That acquiescence vain:  
"The Future I may face now I have  
proved the Past."

1. Explain lines 4 to 6, Stanza XI.
2. Can you name any other poet who has expressed opinions similar to those expressed in Stanza XII?
3. What theory is referred to in Stanza XIII?
4. What natural phenomenon is used as a simile in Stanza XVI?
5. Write the meaning of the whole selection in your own words.

Kindly send papers so that they may be received at this office on or before April 3rd.  
Results of last study will be published as soon as possible.

**Essay—Study No. 1.**

The following essay, submitted in Study I., shows a very clear comprehension of the selection then given: It is the last of many excellent interpretations for which we have space.

"Browning, in the person of the old Jewish Rabbi, invites us to grow old along with him. Old age is not to be deplored; it is simply a higher stage in one's development. The experiences of one's earlier life have



**A Modern Kitchen.**

Note convenient working table, also hood over the range, to carry off steam and odors.

contributed towards this development, and these and all later experiences will co-operate towards some great end. Man's life is planned from first to last by God; a Divine purpose overrules all. We do not attain full development in youth, nor do we understand God's purposes as clearly as in after life. Let us trust God, who knows towards what end He is shaping us, and go forward with faith and confidence.

"Amidst the hopes of youth, there is difficulty in deciding what ideal is to be followed. The soul reaches out towards perfection and longs eagerly to use God-given powers, no ideal is too high. Thus great souls find it difficult to decide whether to devote their lives to one form



**A Living-room or Library.**

Note treatment of walls, also mission furniture. A wooden or brick fireplace would be better than the marble one here shown.

of art or to all forms together, and so the short period of youth passes in uncertainty.

"Browning considers this uncertainty an indication of greatness of soul, and that it is not to be regretted, but far otherwise. It is the reaching out for infinite knowledge and perfection that causes this doubt and dissatisfaction with self, the strivings of the imperfect and unfinished towards the infinite. Low indeed are those who are untroubled by the wish for higher things.

"Life were indeed but a vain display if we were simply created for pleasure, to get what carnal joy we could and

then cease to exist. To be content, not to have doubt and dissatisfaction, were to place ourselves on a level with the brutes, that, having supplied their bodily wants, are satisfied.

"Let us be glad that we are allied to God. Who doeth good to others. It is indeed more blessed to give than to receive. Therein do we show ourselves truly God-like.

"Give, give, be always giving.  
The more we give, the more we live."

We are, indeed, more highly blessed than beings who only receive of the goodness of God, instead of being God's co-workers." E. M. A.

**The Coming Good.**

By Arthur L. Phelps.

Perhaps—some day—  
Through all the striving and the hurried rush,  
Through all the cares and all the things that spoil—  
Perhaps some day we'll get the rhyme aright,  
Metre and poise and all, perfected dream,  
Perhaps, with upward-looking faces toward the light,  
We'll find the primal and the final Gleam.

The good we do?  
'Tis little.  
But again, 'tis much.  
For see—the hindering circumstance  
Earth-clogs the fine machinery of heaven's design,  
And men work slowly toward their clearer sight,  
And good grows, not as doth the beacon light,  
From hill to hill—  
Till all the night's ablaze;

But slowly . . . gathering might,  
Deep, far, far out of common sight—  
As doth in creviced rock,  
With faintest silver tricklings,  
Unheard and caverned murmurs,  
Gather its crystal and its strength,  
The mountain, spring-fed stream—

You do not know—nor I—  
We only scheme and try,  
Strive on—love well our earth,  
Hold right on high—  
Battle and fall,  
And rise to battle on.

brush the crumbs off, feed the cat, wash the dishes, prepare the children for school, put on the wash-boiler, fill it full of water, rinse out the tubs and fill them with water, collect the soiled linen, wash for two hours, wring out the clothes, hang them on the line to dry, and then prepare for the noon-day meal.

Peel a dozen potatoes, a dozen onions, a bunch of beets and turnips, cut up a five-pound cabbage, and chuck in enough corned-beef to fill a horse, and set the whole thing boiling. Prepare the table again, polish the silverware, entertain four or five callers, listen to the hot air of a gay book-agent, brighten up the nickel trimmings on the stove, and by that time dinner will be ready.

After dinner clear the table, wash dishes, sweep the dining-room and kitchen, sew a button on Jimmy's waist, attend to the hole in his trousers, change Lizzie's dress, wash their faces, and they are ready for school again.

After this short breathing spell, dust the sitting-room, sweep the parlor, darn a dozen pairs of socks, cut out a new pair of trousers for Jimmy, fix the lace on Lizzie's new dress, cut the fringes from papa's pants, and entertain one or two more neighbors.

It is now four o'clock, and as the sun has been shining brightly all day, why, the clothes must be dry, so go take them in, sprinkle and fold them, and then for the last meal of the day; but you have forgotten the chamber work; so go upstairs, make the beds, and tidy up.

After this, begin to prepare the evening meal. Get the fire burning briskly, mix up the flour for the biscuits, place same in oven, chop up the meat and vegetables left from dinner, put in the spider and fry. Again prepare table, call the children from their play, wash their faces and hands, and then sit down and enjoy a well-cooked meal.

After supper clear the table, wash dishes, make up a batch of bread, put the children to bed, iron the clothes till 10.15, when you can read the morning paper and converse a few minutes with the members of your family who have not yet retired.

Before you leave for your bed, empty the pan under the ice-chest, put the cat down cellar, see that the windows and doors are locked, and you will have finished a day's work that any woman would feel proud of, and I think you will go back to the iron foundry with a long face and a heart full of pity for the little woman whom you thought had a cinch.—Boston Post.

**The Ship Siren.**

Across the fog, across the rain,  
On glimmering London pavements falling,  
I heard the voice, again, again—  
A voice that is calling, calling.

It calls me where the rivers run  
Through forest gloom unbroken for ever;  
And the steamer's mast to the mid-day sun  
Is shadowless on the river.

"You know," it cries, "how mornings rise  
In smoke from untrodden islands streaming,  
And long waves roll from a southern pole,  
And southern stars are gleaming.

"Remember where the desert lay—  
Purple desert beside the sea—  
And barren mountains round a bay,  
And a storm-crowned promontory;

"And how the midnight draws her breath  
As the sleeping sun returns on high,  
And pallid water sleeps beneath  
A pallid dome of sky.

"Ah! leave the crowd that howls below,  
Crowding houses on either hand.  
The streets are wide by which I go  
To a wide and silent land.

"By a silent road I'll bear you home."  
From London dock the siren's calling,  
"Come to the seas, to the desert come!"  
And I lie enchained in a London room—  
And the rain is falling, falling.

**One Woman's Day.**

If you think that little 110-pound wife of yours has a snap doing her housework, take a day off next week and try the following:

Get up at five, start the kitchen fire, fill the teakettle, put a half-dozen potatoes in the oven to bake, prepare the table, call the children, wash their faces, comb their hair, help dress them, pick up their night-clothes that are scattered all over the floor, then go down-stairs, stir the oatmeal, get the bacon and eggs ready, and call the family to breakfast. After the meal is over clear the table,

## Pastels in Prose.

## PASTEL NO. 1.

"The Fete Dieu was then one of the great events of my life! To deserve to take part in it, it was necessary to show myself diligent and obedient a long time beforehand. I still recall with what raptures of expectation I got up on that day. There was a holy joy in the air. The neighbors, up earlier than usual, hung clothes strewn with flowers, or figured tapestry, along the street. I went from one to another by turns, admiring religious scenes of the Middle Ages, mythological compositions of the Renaissance, old battles arranged in the style of Louis XIV., and the pastorals of Madame de Pompadour. All this world of phantoms seemed to come forth from the dust of past ages to assist—motionless and silent—at the holy ceremony. I was looking with alternate fright and wonder at those terrible warriors with their swords always raised, those beautiful huntresses shooting an arrow which never flew, and those shepherds in satin breeches always occupied in playing the flute at the feet of the perpetually smiling shepherdesses. Sometimes, when the wind blew behind these moving pictures, it seemed to me that the figures themselves moved, and I watched to see them detach themselves from the wall and take their place in the procession! But these impressions were vague and fugitive. That which dominated everything was an expansive, yet tempered joy. In the midst of these floating draperies, of these scattered flowers, of these appeals of the maidens, of this gladness which, like a perfume, exhaled from everything, one was carried away in spite of oneself. The sounds of the festival were repeated in your heart in a thousand melodious echoes. One was more indulgent, more holy, more loving! God was not only manifesting Himself without, but also within us.

"And what improvised altars! what floral arbors! what triumphal arches made of foliage! what competition among the different cantons for the erection of the resting-places where the procession was to halt! It was who should contribute what he had that was rarest and most beautiful.

"It was there I found the opportunity for my first sacrifice! The wreaths of flowers were in their places, the candles lighted, and the tabernacle adorned with roses; but one was wanting fit to crown the whole! All the neighboring gardens had been ransacked. I alone possessed a flower worthy of such a place. It was on the rose-tree given me by my mother on my birthday. I had watched it for several months, and there was no other bud to blow on the tree. There it was, half open, in its mossy nest, an object of long hope and of innocent pride. I hesitated for some moments. No one had asked me for it. I could easily avoid its loss. No reproach could reach me, but one rose noiselessly within me. When everyone else had given all they had, ought I alone to keep back my treasure? Ought I to grudge to God one of the gifts which, like all the rest, I had received from Him? At this last thought I plucked the flower from the stem, and took it to put at the top of the tabernacle. Ah! why does this sacrifice, which was so hard and so sweet for me, remain a recollection which makes me smile to-day? Is it so certain that the value of a gift is in itself, rather than in the intention? If the cup of cold water in the Gospel is remembered to the poor man, why should not the flower be counted to the child? Let us not disdain the child's modest generosity; it is these which accustom the soul to self-denial and to sympathy. I cherished this moss-rose a long time as a sacred talisman; I had obligation to cherish it always, as the record of the first victory won over myself.

"It is now many years since I witnessed the celebration of the Fete Dieu, but shall I find again in it the happy sensations of former days? I still recall, when the procession had passed, those walks through the cross-roads strewn with flowers and shaded with green boughs. Intoxicated by the lingering perfumes of the incense, which mingled with the odors of syringas, jessamines and roses, I went along without touching the earth. I smiled at everything; the whole world was Paradise in my eyes, and it seemed to me that God was floating in the air!

"Besides, this feeling was not the excitement of the moment; more intense on certain days, it continued, nevertheless, through the ordinary course of my life. Many years thus passed for me in expansion of heart, and a trustfulness which prevented sorrow, if not from coming, at least from staying. Sure of not being alone, I soon took heart again, like the child who reassures itself because it hears its mother's voice at its side. Why have I lost that confidence of my first years? Shall I never again feel so deeply that God is here?

"What a strange chain of thought! A day of the month recalls my infancy, and see, all my recollections flourish around me! Whence comes, then, the fullness of happiness of these beginnings? Seriously considered, nothing is sensibly changed in my condition. I possess, as then, health and my daily bread; I have only more responsibility! A child, I accepted life as it was made for me; another cared and provided for me. At peace within, as long as I accomplished present duties, I felt the future to the prudence of my father! My destiny was a ship, of which I had no control, and in which I was carried as a common passenger. There was the whole secret of my happy security. Since then, worldly wisdom has deprived me of it. Sole guardian of my fate, I wished to become the master of it, by means of a far foresight. I have tormented the present by forethought of the future; I have put my judgment in the place of Providence, and the happy child is changed into the anxious man.

"A melancholy course, yet perhaps an important lesson! Who knows but that more trust in Him who rules the world, would have spared me all these anxieties? It may be that happiness is not possible here below but on the condition of living like a child, given up to the duties of each day, and confiding for the rest in the goodness of our heavenly Father."

[From "An Attic Philosopher," by Souvestre. Translated from the French.]

## PASTEL NO. 2.

About a month later, in June. On Iceland it was that rare kind of weather which sailors call "a white calm." The air was perfectly motionless, as if all the tired breezes had vanished away.

The heavens were covered with a great whitish veil, darkening a little at its lower edge near the horizon into a kind of leaden-gray—the color of dull tin. And underneath the motionless waters glittered with a pale light, which fatigued the eyes and made one shiver; the sea looked like watered silk, with constantly changing ripples playing over its smooth surface, little delicate flaws like a breath on a mirror, and the whole glittering expanse of waters seemed covered with a network of indefinite designs, interlacing and effacing each other, quickly coming and quickly gone.

It was impossible to say whether it was eternal evening or eternal dawn. A sun which no longer told the hour rested ever over the horizon, as if presiding over the glittering, lifeless world; it seemed itself hardly more than a formless disk, immeasurably enlarged by the wavering halo which surrounded it.

The "Marie" cast a long reflection over the surface of the sea, like an evening shadow which looked

green on the white and polished mirror in which was reflected the glaring light of the sky. And in all that part which was covered by the shadow could be seen everything that was going on underneath, on account of the clearness of the water. Innumerable fishes, thousands on thousands, all alike, were gliding quietly along in the same direction, as if they all had the same purpose in their never-ending journey. These were the cod, which were performing their evolutions together, stretching along in the same direction in strictly parallel lines—like gray clefts in the water—and trembling constantly with a rapid movement which gave a look of fluidity to the mass of silent life. Sometimes, with a quick flip of their tails, they would all turn over at once, showing the glittering silver scales underneath; and with the same flip of the tail, they would all turn back again, communicating this motion through the entire school, with slow undulations, as if thousands of metallic blades had flashed for a moment in the sunlight between two waves.

The sun, already low in the sky, sank still lower; surely it must be evening. The lower it descended into the leaden banks of cloud which hung over the sea, the more yellow it became, and its shape grew more clear and defined, while one could bear to look at it, like the moon. It still shone; but you would have said that it was not so very far away, and that if you went in a boat only to the edge of the horizon you would run up against this great melancholy balloon floating about in the air, two or three yards above the waters.

The fishing went on fast enough; looking into the still water, you could see very clearly how it was done: the cod swam up and took the bait with a hungry snap, and then shook themselves a little, feeling the prick of the hook, only fastening it more firmly, and then every few minutes the fishermen pulled in their lines, hand over hand, throwing over the fish to the man who split and flattened them.

The little fleet of Paimpol fishing-boats was scattered over this tranquil mirror, enlivening the deserted waters. Here and there their small sails appeared in the distance, set as a matter of form—for there was not a breath stirring—and standing out white and clear against the gray line of the horizon. To-day it seemed a very quiet and easy business—this Iceland fishing—only fit for girls.

Jean Francois de Nantes!

Jean Francois!

Jean Francois!

they sang—the two big children.

[From "An Iceland Fisherman," by Pierre Loti.]

## PASTEL NO. 3.

"Did you never, in walking the fields, come across a large flat stone, which has lain, nobody knows how long, just where you found it, with the grass forming a little hedge, as it were, close to its edges—and have you not, in obedience to a kind of feeling that told you it had been lying there long enough, insinuated your stick or your foot or your fingers under its edge and turned it over, as a housewife turns a cake, when she says to herself, 'It's done brown enough by this time'? What an odd revelation, and what an unforeseen and unpleasant surprise to a small community, the very existence of which you had not suspected, until the sudden dismay and scattering among its members produced by your turning the old stone over! Blades of grass flattened down, colorless, matted together as if they had been bleached and ironed; hideous crawling creatures, some of them coleopterous or horny-shelled—turtles one wants to call them; some of them softer, but cunningly spread out and compressed like Lepine watches; . . . black, glossy crickets, with their long filaments sticking out like the whips of four-horse stage coaches; motionless, slug-like crea-

tures, larvae, perhaps, more horrible in their pulpy stillness than even in the infernal wriggle of maturity! But no sooner is the stone turned, and the wholesome light of day let upon this compressed and blended community of creeping things, than all of them that enjoy the luxury of legs—and some of them have a good many—rush round wildly, butting each other and everything else in their way, and end in a general stampede for underground retreats from the region poisoned by sunshine. Next year you will find the grass growing tall and green where the stone lay; the ground-bird builds her nest where the beetle had his hole; the dandelion and the buttercup are growing there, and the broad fans of insect-angels open and shut over their golden disks, as the rhythmic waves of blissful consciousness pulsate through their glorified being.

"There is meaning in each of those images. The stone is ancient error. The grass is human nature borne down and bleached of all its color by it. The shapes that are found beneath are the crafty beings that thrive in darkness, and the weaker organisms kept helpless by it. He who turns the stone over is whosoever puts the staff of truth to the old incubus, no matter whether he do it with a serious face or a laughing one. The next year stands for the coming time. Then shall the nature which has lain blanched and broken rise in its full stature and notice lives in the sunshine. Then shall God's minstrels build their nests in the hearts of a newborn humanity. Then shall beauty—Divinity taking outlines and color—light upon the souls of men as the butterfly, image of the beautified spirit rising from the dust, soars from the shell that held a poor grub, which would never have found wings had not the stone been lifted.

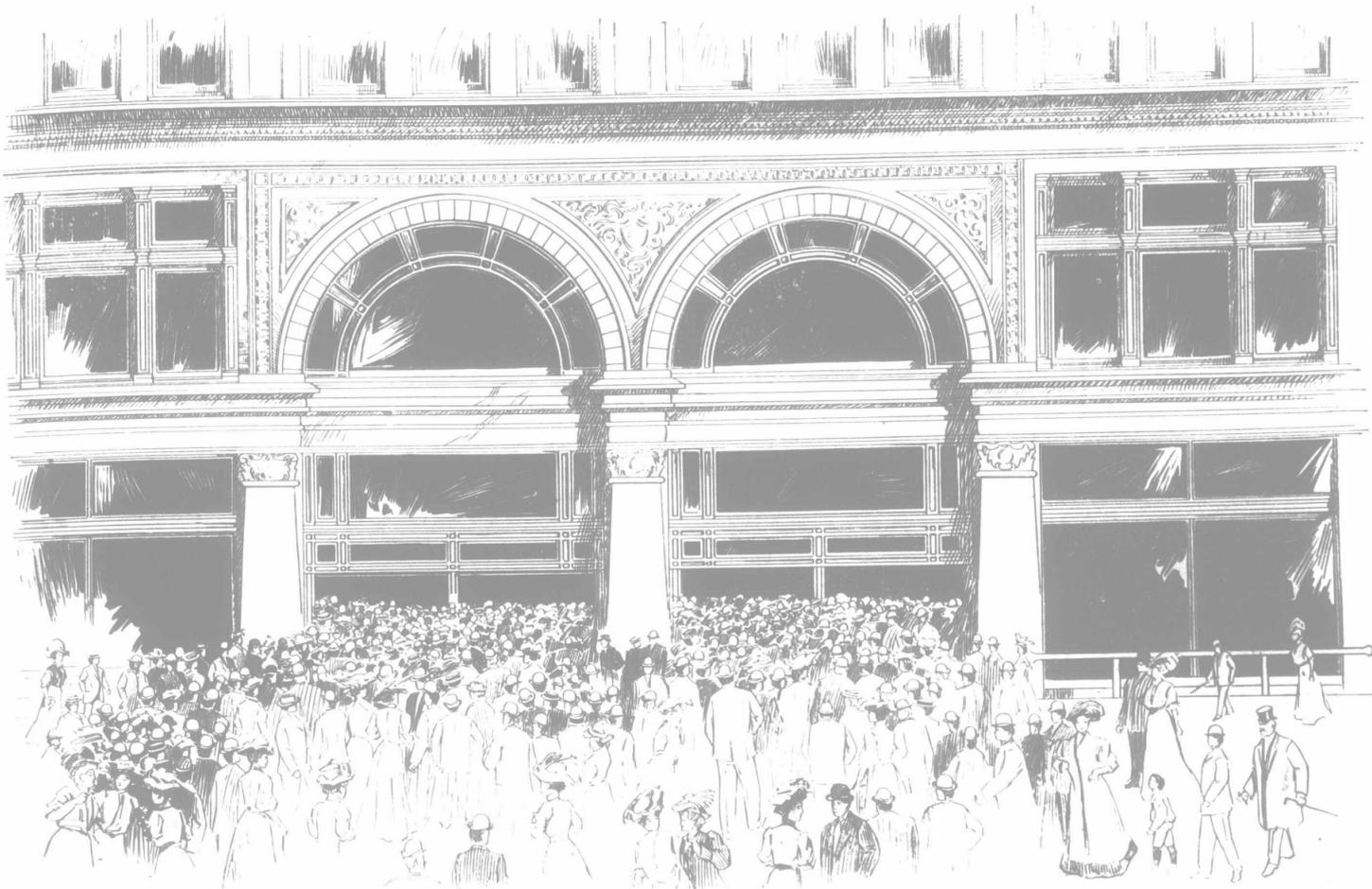
"You never need think you can turn over any old falsehood without a terrible squirming and scattering of the horrid little population that dwells under it."

[From "Autocrat of the Breakfast Table," by Holmes.]

## PASTEL NO. 4.

"Noting how one eye seconds and reinforces the other, I have often amused myself by wondering what the effect would be if one could go on opening eye after eye to the number, say, of a dozen or more. . . . At any rate, some persons seem to have opened more eyes than others, they see with such force and distinctness; their vision penetrates the tangle and obscurity where that of others fails like a spent or impotent bullet. How many eyes did Gilbert White open? How many did Henry Thoreau? How many did Audubon? How many does the hunter, matching his sight against the keen and alert sense of a deer or a moose, or a fox or a wolf? Not outward eyes, but inward. We open another eye whenever we see beyond the first general features or outlines of things—whenever we grasp the special details and characteristic markings that this mask covers. Science confers new powers of vision. Whenever you have learned to discriminate the birds, or the plants, or the geological features of a country, it is as if new and keener eyes were added.

"I find I see, almost without effort, nearly every bird within sight in the field or wood I pass through (a flit of the wing, a flirt of the tail are enough, though the flickering leaves do all conspire to hide them), and I know that with like ease the birds see me, though, unquestionably, the chances are immensely in their favor. The eye sees what it has the means of seeing, truly. You must have the bird in your heart before you can find it in the bush. The eye must have purpose and aim. No one ever yet found the walking fern who did not have the walking fern in his mind. A person whose eye is full of Indian



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relics picks them up in every field he walks through.

"One season I was interested in the tree-frogs, especially the tiny pipers that one hears about the woods and brushy fields—the hylas of the swamps become a denizen of the trees; I had never seen him in this new role. But this season, having them in mind, or rather being ripe for them, I several times came across them. One Sunday, walking amid some bushes, I captured two. They leaped before me, as doubtless they had done many times before, but though not looking for or thinking

of them, they were quickly recognized, because the eye had been commissioned to find them. On another occasion, not long afterward, I was hurriedly loading my gun in the October woods, in hopes of overtaking a gray squirrel that was fast escaping through the tree-tops, when one of these Liliput frogs, the color of the fast yellowing leaves, leaped near me. I saw him only out of the corner of my eye, and yet bagged him, because I had already made him my own.

"Nevertheless, the habit of observation is the habit of clear and de-

cisive gazing; not by a first casual glance, but by a steady, deliberate aim of the eye, are the rare and characteristic things discovered. You must look intently and hold your eye firmly to the spot, to see more than do the rank and file of mankind. The sharpshooter picks out his man, and knows him with fatal certainty from a stump, or a rock, or a cap on a pole. The phrenologists do well to locate, not only form, color, weight, etc., in the region of the eye, but a faculty which they call individuality—that which separates, discriminates, and sees in every ob-

ject its essential character. This is just as necessary to the naturalist as to the artist, or the poet. The sharp eye notes specific points and differences—it seizes upon and preserves the individuality of the thing."—[John Burroughs, in "Sharp Eyes."

Doctor (to patient)—Your case is a very serious one, sir, and I think a consultation had better be held.

Patient (too sick to care for anything)—Very well, doctor, have as many accomplices as you like.

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### A Woman's Sympathy

Are you discouraged? Is your doctor's bill a heavy financial load? Is your pain a heavy physical burden? I know what these mean to delicate women—I have been discouraged, too, but learned how to cure myself. I want to relieve your burdens. Why not end the pain and stop the doctor's bill? I can do this for you and will if you will assist me.

All you need do is to write for a free box of the remedy which has been placed in my hands to be given away. Perhaps this one box will cure you—it has done so for others. If so, I shall be happy and you will be cured for 2c (the cost of a postage stamp). Your letters held confidentially. Write to-day for my free treatment. MRS. F. E. CURRAH, Windsor, Ont.

At a Sunday school in the country a teacher was examining her class on the Bible, the lesson being a part of Genesis. She asked her class: "Why did the serpent tempt Eve instead of Adam?" For some time there was silence, but at length a little boy held up his hand and replied: "Please mum, 'cause it's ladies first."

### The Expense of Condiments.

It is recognized by feeders generally that a condiment is necessary with stall-feeding. A safe condiment must contain no dope of any kind. It must not be a tonic in a direct sense. It SHOULD act as a tonic indirectly by making the food more easily digested. It should NOT be expensive. Herbageum fills all the conditions. One fifty-cent package is enough for one animal for eight months. It contains no drugs, and it acts just as it should act. It is as natural and safe as a first-class pasture. For cows coming in it is a great safeguard, and for young calves it has no equal.

## The Golden Dog

(Le Chien D'Or.)

A Canadian Historical Romance.

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### CHAPTER XI.

#### The Soldier's Welcome.

The voices of the gentlemen mingled with her aunt's in eager greetings. She well knew which must be the voice of Colonel Philibert—the rest were all so familiar to her ear. Suddenly footsteps ran up the grand stair, clearing three at a time. She waited, trembling with anticipation. Le Gardeur rushed into the room with outstretched arms, embraced her, and kissed her in a transport of brotherly affection.

"Oh, Le Gardeur!" cried she, returning his kiss with fond affection, and looking into his face with tenderness and joy. "O my brother, how I have prayed and longed for your coming. Thank God! you are here at last. You are well, brother, are you not?" said she, looking up with a glance that seemed to betray some anxiety.

"Never better, Amelie," replied he, in a gayer tone than was quite natural to him, and shyly averting his eyes from her tender scrutiny. "Never better. Why, if I have been in my grave, I should have risen up to welcome a friend whom I have met to-day after years of separation. Oh, Amelie, I have such news for you!"

"News for me, Le Gardeur! What can it be?" A blush stole over her countenance, and her bosom heaved, for she was very conscious of the nature of the news her brother was about to impart.

"Guess! you unsuspecting queen of shepherdesses," cried he, archly twisting a lock of her hair that hung over her shoulder. "Guess, you pretty gipsy, you!"

"Guess? How can I guess, Le Gardeur? Can there be any news left in the City of Quebec after an hour's visit from Madame de Grandmaison and Madam Couillard? I did not go down, but I know they inquired much after you, by the way!" Amelie, with a little touch of feminine perversity, shyly put off the grand burst of Le Gardeur's intelligence, knowing it was sure to come.

"Pshaw! who cares for those old scandal-mongers! But you can never guess my news Amelie, so I may as well tell you." Le Gardeur fairly swelled with the announcement he was about to make.

"Have mercy then, brother, and tell me at once, for you do now set my curiosity on tiptoe." She was a true woman, and would not for anything have admitted her knowledge of the presence of Colonel Philibert in the house.

"Amelie," said he, taking her by both hands, as if to prevent her escape, "I was at Beaumanoir—you know the Intendant gave a grand hunting party," added he, noticing the quick glance she gave him, "and who do you think came to the Chateau and recognized me, or, rather, I recognized him? A stranger—and not such a stranger, either, Amelie."

"Nay; go on, brother! Who could this mysterious stranger and no stranger have been?"

"Pierre Philibert, Amelie! Pierre—our Pierre, you know! You recollect him, sister!"

"Recollect Pierre Philibert? Why, how could I ever forget him while you are living? since to him we are all indebted for your life, brother!"

"I know that; are you not glad, as I am, at his return?" asked Le Gardeur, with a penetrating look.

She threw her arms around him involuntarily, for she was much agitated. "Glad, brother? Yes, I am glad because you are glad."

"No more than that, Amelie! That is a small thing to be glad for."

"Oh, brother! I am glad for gladness's sake! We can never over-pay the debt of gratitude we owe Pierre Philibert."

"O my sweet sister," replied he, kissing her, "I knew my news would please you. Come, we will go down and see him at once, for Pierre is in the house."

"But, Le Gardeur!" She blushed and hesitated. "Pierre Philibert I knew—I could speak to him; but I shall hardly dare recognize him in the stately soldier of to-day. Voila la difference!" added she, repeating the refrain of a song very popular both in New France and in Old at that period.

Le Gardeur did not comprehend her hesitation and tone. Said he: "Pierre is wonderfully changed since he and I wore the green sash of the seminary. He is taller than I, wiser and better—he was always that—but in heart the same generous, noble Pierre Philibert he was when a boy. Voila la ressemblance!" added he, pulling her hair archly as he repeated the antistrophe of the same ditty.

Amelie gave her brother a fond look, but she did not reply, except by a tight pressure of the hand. The voices of the Chevalier La Corne and the Lady de Tilly and Colonel Philibert were again heard in animated conversation. "Come, brother, we will go now," said she; and, quick in executing any resolution she had formed, she took the arm of her brother, swept with him down the broad stair, and entered the drawing-room.

Philibert rose to his feet in admiration of the vision of loveliness that suddenly beamed upon his eyes. It was the incarnation of all the shapes of grace and beauty that had passed through his fervid fancy during so many years of absence from his native land. Something there was of the features of the young girl who had ridden, with flying locks, like a sprite, through the woods of Tilly. But comparing his recollection of that slight girl with the tall, lithe, perfect womanhood of the half-blushing girl before him, he hesitated, although intuitively aware that it could be no other than the idol of his heart, Amelie de Repentigny.

Le Gardeur solved the doubt in a moment by exclaiming, in a tone of exultation, "Pierre Philibert, I bring an old young friend to greet you—my sister!"

Philibert advanced, and Amelie raised her dark eyes with a momentary glance that drew into her heart the memory of his face forever. She held out her hand frankly and courteously. Philibert bent over it as reverently as he would over the hand of the Madonna.

The greeting of the Lady de Tilly and La Corne St. Luc had been cordial, nay, affectionate in its kindness. The good lady kissed Pierre as a mother might have done a long-absent son.

"Colonel Philibert," said Amelie, straining her nerves to the tension of steel, to preserve her composure, "Colonel Philibert is most welcome; he has never been forgotten in this house." She glanced at her aunt, who smiled approvingly at Amelie's remark.

"Thanks, Mademoiselle de Repentigny; I am indeed happy to be remembered here; it fulfils one of my most cherished hopes in returning to my native land."

"Ay, ay, Pierre," interrupted La Corne St. Luc, who looked on this little scene very admiringly, "good blood never lies. Look at Colonel Philibert, there, with the King's epaulets on his shoulders. I have a sharp eye, as you know, Amelie, when I look after my pretty god-daughter, but I should not have recognized our lively Pierre in him, had Le Gardeur not introduced him to me, and I think you would not have known him, either."

"Thanks for your looking after me, godfather," replied Amelie, merrily, very grateful in her heart for his appreciation of Pierre, "but I think neither aunt nor I should have failed to recognize him."

"Right, my Amelie!" said the

Lady de Tilly. "We should not, and we shall not be afraid, Pierre—I must call you Pierre or nothing—we shall not be afraid, although you do lay in a new stock of acquaintances in the capital, that old friends will be put aside as unfashionable remnants."

"My whole stock of friendship consists of those remnants, my Lady—memories of dear friends I love and honor. They will never be unfashionable with me; I should be bankrupt, indeed, were I to part with one of them."

"Then, they are of a truer fabric than Penelope's web, for she, I read, pulled in pieces at night what she had woven through the day," replied Lady de Tilly. "Give me the friendship that won't unravel."

"But not a thread of my recollections has ever unravelled, or ever will," replied Pierre, looking at Amelie, as she clasped the arm of her aunt, feeling stronger, as is woman's way, by the contact with another.

"Zounds. What is all this merchant's talk about webs and threads and thrums?" exclaimed La Corne. "There is no memory as good as a soldier's, Amelie, and for good reason; a soldier on our wild frontiers is compelled to be faithful to old friends and old flannels; he cannot help himself to new ones if he would. I was five years and never saw a woman's face, except red ones—some of them were very comely, by the way," added the old warrior, with a smile.

"The gallantry of the Chevalier La Corne is incontestable," remarked Pierre, "for once, when we captured a convoy of soldier's wives from New England, he escorted them, with drums beating, to Grand Pre, and sent a cask of Gascon wine for them to celebrate their reunion with their husbands."

"Frowzy huzzies! not worth keeping, or I would not have sent them; fit only for the bobtailed militia of New England!" exclaimed La Corne.

"Not so thought the New Englanders, who had a three-days' feast when they remarried their wives—and handsome they were, too," said Philibert; "the healths they drank to the Chevalier were enough to make him immortal."

La Corne always brushed aside compliments to himself: "Tut, my Lady! it was more Pierre's good nature than mine—he, out of kindness, let the women rejoin their husbands; on my part, it was policy and stratagem of war. Hear the sequel! The wives spoiled the husbands, as I guessed they would do, taught them to be late at reveille, too early at tattoo. They neglected guards and pickets, and when the long nights of winter set in, the men hugged their wives by the firesides instead of their muskets by their watchfires. Then came destruction upon them! In a blinding storm, amid snowdrifts and darkness, Coulon de Villiers, with his troops on snowshoes, marched into the New England camp, and made widows of the most of the poor wives, who fell into our hands the second time. Poor creatures! I saw that day how hard it was to be a soldier's wife." La Corne's shaggy eyelash twinkled with moisture. "But it was the fortune of war!—the fortune of war, and a cruel fortune it is at the best!"

The Lady de Tilly pressed her hand to her bosom to suppress the rising emotion. "Alas, Chevalier! poor widows! I feel all they suffered. War is indeed a cruel fortune, as I too have had reason to learn."

"And what became of the poor women, godfather?" Amelie's eyes were suffused with tears; it was in her heart, if ever in any mortal's, to love her enemies.

"Oh, we cared for them the best we could. The Baron de St. Castin sheltered them in his chateau for the winter, and his daughter devoted herself to them with the zeal and tenderness of a saint from Heaven—a noble, lovely girl, Amelie!" added La Corne, impressively; "the fairest flower in all Acadia, and most unfortunate, poor girl! God's bless-

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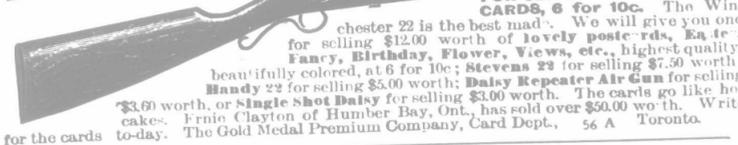
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## 22 WINCHESTER RIFLE



ing rest upon her, wherever she may be!" La Corne St. Luc spoke with a depth of emotion he rarely manifested.

"How was she unfortunate, godfather?" Philibert watched the cheek flush and the eyelid quiver of the fair girl as she spoke, carried away by her sympathy. His heart went with his looks.

"Alas!" replied La Corne, "I would fain not answer, lest I distrust the moral government of the universe. But we are blind creatures, and God's ways are not fashioned in our ways. Let no one boast that he stands, lest he fall! We need the help of the host of Heaven to keep us upright and maintain our integrity. I can scarcely think of that noble girl without tears. Oh, the pity of it! The pity of it!"

Lady de Tilly looked at him wondering. "I knew the Baron de St. Castin," said she. "When he came to perform homage at the Castle of St. Louis, for the grant of some lands in Acadia, he was accompanied by his only daughter, a child perfect in goodness, grace and loveliness. She was just the age of Amelie. The ladies of the city were in raptures over the pretty Mayflower, as they called her. What, in heaven's name, has happened to that dear child, Chevalier La Corne?"

La Corne St. Luc, half angry with himself for having broached the painful topic, and not used to pick his words, replied bluntly: "Happened,

my Lady! what is it happens worst to a woman? She loved a man unworthy of her love—a villain, in spite of high rank and King's favor, who deceived this fond, confiding girl, and abandoned her to shame! Faugh! It is the way of the Court, they say; and the King has not withdrawn his favor, but heaped new honors upon him!" La Corne put a severe curb upon his utterance and turned impatiently away, lest he might curse the King, as well as the favorite.

"But what became of the poor deceived girl?" asked the Lady de Tilly, after hastily clearing her eyes with her handkerchief.

"Oh, the old, old story followed. She ran away from home in an agony of shame and fear, to avoid the return of her father from France. She went among the Indians of the St. Croix, they say, and has not been heard of since. Poor, dear girl! her very trust in virtue was the cause of her fall!"

Amelie turned alternately pale and

red at the recital of her godfather. She riveted her eyes upon the ground as she pressed close to her aunt, clasping her arm, as if seeking strength and support.

Lady de Tilly was greatly shocked at the sad recital. She inquired the name of the man of rank who had acted so treacherously to the hapless girl.

"I will not utter the name to-day, my Lady! It has been revealed to me as a great secret. It is a name too high for the stroke of the law, if there be any law left us but the will of a king's mistress. God, however, has left us the law of a gentleman's sword to avenge its master's wrong. The Baron de St. Castin will soon return to vindicate his own honor, and whether or no, I vow to heaven, my Lady, that the traitor who has wronged that sweet girl will one day have to try whether his sword be sharper than that of La Corne St. Luc! But pshaw! I am talking bravado like an Indian at the war post. The story of those

luckless New England wives has carried us beyond all bounds."

Lady de Tilly looked admiringly, without a sign of reproof, at the old soldier, sympathizing with his honest indignation at so foul a wrong to her sex. "Were that dear child mine, woman as I am, I would do the same thing!" said she, with a burst of feeling. She felt Amelie press her arm, as if she, too, shared the spirit of her bolder aunt.

"But here comes Felix Baudoin to summon us to dinner!" exclaimed Lady de Tilly, as an old, white-headed servitor in livery appeared at the door with a low bow, announcing that dinner was served.

Le Gardeur and La Corne St. Luc greeted the old servitor with the utmost kindness, inquired after his health, and begged a pinch from his well-worn snuff-box. Such familiarities were not rare in that day between the gentlemen of New France and their old servants, who usually passed their lifetime in one household. Felix was the majordomo of the Manor House of Tilly, trusty, punctilious, and polite, and honored by his mistress more as an humble friend than as a servant of her house.

"Dinner is served, my Lady!" repeated Felix, with a bow. "But my Lady must excuse! The kitchen has been full of habitans all day. The Trifourchettes, the Doubledents, and all the best eaters in Tilly have been here. After obeying my Lady's commands to give them all they could



Advertisements will be inserted under this heading, such as Farm Properties, Help and Situations Wanted, and Pet Stock. 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 60 cents.

**BRITISH COLUMBIA LANDS**—Very handsomely illustrated catalogue of fruit and farm lands. Every man interested in a milder climate should write for it. F. J. Hart & Co., Ltd. (established 1891), Vancouver.

**DAIRY and poultry products at Indian Head.**—Butter sells readily at 25c. to 35c. Eggs 20c. to 40c. Poultry 15c. to 25c. Cause, exclusive wheat farming. Wanted, several families experienced in mixed farming to buy "park lands" farms (partly open and partly wooded) at prices ranging from \$8 to \$20 per acre. If you are interested and understand the business, write us for fuller information. The Eastern Sask. Land Co., Indian Head, Sask.

**FARM for sale, containing 100 acres.** Is in A1 condition and extra well fenced. 10 acres of bush, 10 acres in with wheat, 25 acres seeded down. 45 acres plowed. Soil clay loam. Is only five miles from St. George Condensed-milk Factory. Two-story frame house. Barn 40 x 60 ft. Driving barn 30 x 50 ft. A good drilled well. This is one of the best farms in the Township of Beverly. Full particulars on applying to the owner. Terms can be made easy. F. Robb, Jr., Trov Ont.

**PEDIGREED CHERRY TREES**—We have a nice assortment of very fine two-year-old sweet cherries. We can offer for a limited time only special bargains in fine trees. Standard sorts, our selection, three fifty per dozen. Auburn Nurseries, Queenston, Ont.

**THREE hundred and twenty acre farm.** Splendid soil, all level. Good water. Two hundred acres summer-fallow ready for seeding. Good buildings. Twenty-five dollars per acre. Suitable terms. Communicate or call: Mybery, Moose Jaw, Sask.

**TO RENT 160 acres in Moosomin district;** 70 acres under cultivation, balance can all be broken. Good house. Three and a half miles from town. For sale: 960 acres, all mixed farming land, in Medicine Hat district; 110 acres broken; 20 acres summer-fallow; 30 acres fall plowing. House 18x24, one mile from post office. Milk house, root house, barn suitable for 8 horses, also shed and corrals. Good spring water at the door. Small creek running through farm. 40 head of horses, 30 head of cattle, and all farm machinery included. Price, \$10,000.00. Immediate possession. For sale: 320 acres near Coaley, Alta.; one-half mile from town. Good house and barn. Large granary. 325 a res seeded to fall wheat last August, and looking first-class. 15 acres in timothy. 30 acres ready for spring crop. Small lake about 5 acres, balance can all be broken. The owner threshed 1,978 bushels off 40 acres, and it all graded No. 1. Price, \$35 per acre, including the crop. Immediate possession. Dangerfield & Doolittle, 604 McIntyre Block, Winnipeg, Man.

**VETERAN land scrips wanted.** Write, giving us spot cash price. Farms for sale—improved and unimproved. Write for list. Mulholland & Company, 4 Vico to St. Toronto.

**WANTED**—Four experienced men (Scotch preferred) on a stock and dairy farm. Must be good milkers and teamsters. Apply, stating wages wanted, to Box G Farmer's Advocate, London.

**100 ACRES,** 3/4 mile from a village. Mostly clay loam. Brick house, 40x40. Basement barn, cement floor, metal roof. Water in stables. Silo. Drive barn. Hogpen, cement floors. 35 acres plowed. 30 acres timber. 800 tapping maples; evaporating pan, buckets, vats, whole outfit in a good building with lock. One mile to cheese factory. 100 rods to school. Telephone in house. A snap at \$5,800. 150 acres, 3/4 mile from village railway station. High school, bank, churches. First-class creamery runs year round. Level clay loam, easily worked. 60 acres fall plowed. 14 acres wheat. 2-story frame house; cellar. Good orchard. New hip roof barn, 40x110. Stone basement barn, 24x80. Lots of water, pumped by windmill. A bargain at \$8,500; \$2,500 down, balance at 4 1/2 per cent. Also a choice clay loam farm for sale, 2 1/2 miles from Paris. 175 acres. A most desirable home, situated on main travelled road, nine miles from Brantford. A lovely home, brick residence, costing over \$4,000; furnace. Several good-size stone basement barns. Buildings cost \$7,000. Lots of good water. A rich productive farm. \$3,500 down, balance at 4 1/2 per cent. Come to Paris Junction. Write two days ahead. Will meet any train mentioned. Reside on 2nd con., 4 miles west. R. Waite Canning, Ont.

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State quantity you have to offer.

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**SEED CORN FOR SALE** that will grow. Coypion's Early, hand sorted by breeder, and home grown. A large grain yield, an early maturer, and a large yield of fodder for ensilage. Write for prices. **W. B. ROBERTS, Sparta, Ont.**

Her clear eyes shone, her pretty face was flushed, and advancing to the edge of the platform, she cried warmly: "You deny us the vote? Yet it is to your wives that most of you owe your business success!"

A tired, stoop-shouldered old man nodded his assent.

"Certainly," he muttered, "our wives make it absolutely necessary for us to earn more money."

eat, we have had difficulty in saving anything for my Lady's own table."

"No matter, Felix, we shall say grace all the same. I could content myself with bread and water, to give fish and flesh to my censitaires, who are working so willingly on the King's corvee! But that must be my apology to you, Pierre Philibert and the Chevalier La Corne, for a poorer dinner than I could wish."

"Oh, I feel no misgivings, my Lady!" remarked La Corne St. Luc, laughing. "Felix Baudoin is too faithful a servitor to starve his mistress for the sake of the Trifourchettes, the Doubledents, and all the best eaters in the Seigniorie! No! no! I will be bound your Ladyship will find Felix has tolled and tithed from them enough to secure a dinner for us all—come, Amelie, with me."

Lady de Tilly took the arm of Colonel Philibert, followed by Le Gardeur, La Corne and Amelie, and, marshalled by the majordomo, proceeded to the dining-room—a large room, wainscoted with black walnut, a fine wood, lately introduced. The ceiling was coved, and surrounded by a rich frieze of carving. A large table, suggestive of hospitality, was covered with drapery of the snowiest linen, the product of the spinning-wheels and busy looms of the women of the Seigniorie of Tilly. Vases of China, filled with freshly-gathered flowers, shed sweet perfumes, while they delighted the eye with their beauty, etherealizing the elements of bread and meat by suggestions of the poetry and ideals of life. A grand old buffet, a prodigy of cabinetmaker's art, displayed a mass of family plate, and a silver shield, embossed with the arms of Tilly, a gift of Henry of Navarre to their ancient and loyal house, hung upon the wall over the buffet.

In spite of the Trifourchettes and the Doubledents, Felix Baudoin had managed to set an excellent dinner upon the table of his lady, who looked archly at the Chevalier La Corne, as if assenting to his remark on her old servitor.

The lady remained standing at the head of her table until they all sat down, when, clasping her hands, she recited with feeling and clearness the old Latin grace, "Benedic, Domine, nos et hanc tua dona," sanctifying her table by the invocation of the blessing of God upon it, and upon all who sat round it.

A soup, rich and savory, was the prelude at all dinners in New France. A salmon, speared in the shallows of the Chaudiere, and a dish of blood-speckled trout from the mountain streams of St. Joachim, smoked upon the board. Little oval loaves of wheaten bread were piled up in baskets of silver filigree. For in those days the fields of New France produced crops of the finest wheat—a gift which Providence has since withheld. "The wheat went away with the Bourbon lilies, and never grew afterwards," said the old habitants. The meat in the larder had all really been given to the hungry censitaires in the kitchen, except a capon from the basse cour of Tilly and a standing pie, the contents of which came from the manorial dovecote. A reef of raspberries, red as corals, gathered on the tangled slopes of Cote a Bonhomme, formed the dessert, with blue whortleberries from Cape Tourment, plums sweet as honey drops, and small, gray-coated apples from Beupre, delicious as those that comforted the rose of Sharon. A few carates of choice wine from the old manorial cellar, completed the entertainment.

The meal was not a protracted one, but to Pierre Philibert the most blissful hour of his life. He sat by the side of Amelie, enjoying every moment as if it were a pearl dropped into his bosom by word, look, or gesture of the radiant girl who sat beside him.

He found Amelie, although somewhat timid at first to converse, a willing, nay, an eager listener. She was attracted by the magnetism of a noble, sympathetic nature, and by degrees ventured to cast a glance at

the handsome, manly countenance where feature after feature revealed itself, like a landscape at dawn of day, and in Colonel Philibert she recognized the very looks, speech and manner of Pierre Philibert of old.

His questioning eyes hardly needed the interpretation of her tongue to draw him out to impart the story of his life during his long absence from New France, and it was with secret delight she found in him a powerful, cultivated intellect and nobility of sentiment such as she rightly supposed belonged only to a great man, while his visible pleasure at meeting her again filled her with a secret joy that, unnoticed by herself, suffused her whole countenance with radiance, and incited her to converse with him more freely than she had thought it possible when she sat down at the table.

"It is long since we sat together, Mademoiselle, at the table of your noble aunt, remarked Philibert. "It fulfils an often and often repeated day-dream of mine, that I should one day find you just the same."

"And do you find me just the same?" answered she, archly. "You take down the pride of ladyhood immensely, Colonel! I had imagined I was something quite other than the wild child at Tilly!"

"I hardly like to consider you as in the pride of ladyhood, Mademoiselle, for fear I should lose the wild child of Tilly, whom I should be so glad to find again."

"And whom you do find just the same in heart, mind, and regard, too!" thought she to herself, but her words were: "My school mistresses would be ashamed of their work, Colonel, if they had not improved on the very rude material my aunt sent them up from Tilly to manufacture into a fine lady! I was the crowned queen of the year when I left the Ursulines, so beware of considering me 'the child of Tilly' any longer."

Her silvery laugh caught his heart, for in that he recognized vividly the gay young girl whose image he was every instant developing out of the tall, lovely woman beside him.

La Corne St. Luc and the Lady de Tilly found a thousand delights in mutual reminiscences of the past. Le Gardeur, somewhat heavy, joined in conversation with Philibert and his sister. Amelie guessed, and Philibert knew, the secret of Le Gardeur's dullness; both strove to enliven and arouse him. His aunt guessed, too, that he had passed the night as the guests of the Intendant always passed it, and knowing his temper and the regard he had for her good opinion, she brought the subject of the Intendant into conversation, in order, casually, as it were, to impress Le Gardeur with her opinion of him. "Pierre Philibert, too," thought she, "shall be put on his guard against the crafty Bigot."

"Pierre," said she, "you are happy in a father who is a brave, honorable man, of whom any son in the world might be proud. The country holds by him immensely, and he deserves their regard. Watch over him now you are at home, Pierre. He has some relentless and powerful enemies, who would injure him if they could."

"That has he," remarked La Corne St. Luc. "I have spoken to the Sieur Philibert and cautioned him, but he is not impressible on the subject of his own safety. The Intendant spoke savagely of him in public the other day."

"Did he, Chevalier?" replied Philibert, his eyes flashing with another fire than that which had filled them looking at Amelie. "He shall account to me for his words, were he regent, instead of Intendant."

La Corne St. Luc looked half apologetically at Philibert.

"Don't quarrel with him, Colonel," said he. "You cannot raise a quarrel of that he has said."

To be continued.



This new Wringer Attachment is "head and shoulders" above any other. The entire stand is absolutely rigid—always in position—never in the way—and the water drains right into the tub. "New Century" Washing Machine—complete and delivered at any railway station in Ontario or Quebec—only \$9.50. Write for free booklet.

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

**ANCONAS**—Best layers in existence. Eggs \$1.25 per fifteen. E. W. Wardle, 131, Corinth, Ont.

**BROWN Leghorns**—For eighteen years valuable prizewinning strain. Eggs reasonable. Handsome Black Minorcas. Special prices on incubator lots and cockerels. Mrs. C. Dav. Highgate, Ont.

**BUFF LEGHORNS**—Winners Guelph, Ottawa, Montreal. A few cockerels. Settings, one, two and three dollars. Sidney Ellis, Renfrew, Ont.

**BARRED Plymouth Rock eggs** for hatching from winners at Toronto, London and Guelph. A few cockerels for sale. All correspondence promptly answered. Leslie Kerns, Freeman, Ont.

**BARRED ROCKS**—A number of A1 quality cockerels (hen hatched), bred from second-prize bird at Eastern Poultry Show, and from hens selected for their persistent laying qualities. All choice colors. W. C. Shearer, Bright, Ont.

**BUFF ORPINGTONS**—A few cockerels for sale. Eggs for hatching. Drop card for catalogue. Hugh A. Scott, Caledonia, Ont.

**CLARK'S Buff Orpingtons**—25 good colored, vigorous cockerels and females for sale, \$2 to \$5 each. Good laying strain. Eggs for hatching, 10 breeding pens. Free mating list. J. W. Clark, Cainsville, Ont.

**EGGS FOR HATCHING**—We guarantee satisfaction. A post card will bring you our free mating list. Barring Plymouth Rocks, 1 rose and Single Comb Black Minorcas and Brown Leghorns. All prizewinning stock. Two first-class Barring Rock cockerels left. Mrs. C. Dav. Highgate, Ont.

**EGGS**—White Wyandot, e. g. Martin and Massey strains, one dollar per fifteen, five dollars per hundred. Chas. E. Rogers, Dorchester, Ont.

**EGGS** from grand laying Indian Runner ducks, 10c each. Single-comb Brown Leghorns, \$1 per 15. Frank Baines, Glanworth, Ont.

**MODEL Incubator**, 360 e. g.; used once; goes with highest offer. R. A. Barr, Vinemount.

**MAMMOTH Bronze turkeys**. Show birds. Bred from prizewinning heavy-weight stock. Pairs not akin. R. G. Rose, Glanworth, Ont.

**RHODE ISLAND REDS**—Rose-comb. Bred ten years from carefully selected heavy winter layers of large brown eggs. Eggs, dollar half per fifteen. Satisfaction guaranteed. Jno. Luscombe, Merton, Ont.

**WHITE Rock eggs** for sale, also a few cockerels. Apply to Howard Smith, Winona, Ont.

**WHITE Wyandotte cockerels** from Martin's best pens. Prices reasonable. A. F. Post, Cobourg, Ont.

**WHITE Leghorns**, single comb; large size; good layers. Eggs one dollar setting. Cockerels one twenty-five. A. E. Donaghy, Colborne, Ont.

**Write for Our Free Catalogue**

Eggs for hatching from the following breeds: Buff Orpingtons, R. I. Reds (either comb), S. C. White Leghorns, S. C. B. Minorcas from Canada's best. Eggs, \$1.50 per 15; \$2.50 per 30.

**The R. Roy Poultry Farm, Elmira, Ont.** R. R. Ruppel, Proprietor.

One day a wealthy Jew received a visit from his cousin Levi. "My friend," said Levi, "I am in great distress, and I rely on you to enable me to earn some money." "You have come at the right time," replied Isaac. "I have just bought some trees. You can saw them up for me." "And what will you pay me for the work?" Levi asked. "Mon Dieu!" Isaac responded, "I would have given three francs a day to a Christian, but one ought to pay a co-religionist more; therefore, I will give you five francs a day." "Well," said Levi, after reflecting a few moments, "Give me two francs, and get a Christian to saw your wood. That will amount to the same thing for you."

### Current Events.

Sir Edward Morris was sworn in on March 3rd as Premier of Newfoundland.

William H. Taft was inaugurated as President of the United States on March 4th.

The Alberta Legislature has dissolved, and the election will be held on March 22nd.

The Krupp Gun Works are already engaged in making guns to be used on and against airships.

Isle Royale, in Lake Superior, has been bought by a company, and will be converted into a summer resort.

Thirty-one confectioners in Montreal, and fifty in Toronto, were fined a short time ago for selling branded chocolates.

The Grand Trunk Pacific is willing to undertake the building of the Quebec bridge, and will agree, if given the contract, to complete the work in three years.

The Reichstag has decided that the Kaiser must pay the same income tax collected from private citizens. Hitherto, he has been exempt from taxation.

Wireless messages were successfully received in a train between Buffalo and Chicago, while the train was running at the rate of 63 miles an hour.

The duty on lumber admitted to the United States has been placed at \$1.50 per thousand, a reduction of 50 cents per thousand on the former rate.

Servia, in accordance with the advice of the Powers, has withdrawn her demand for territorial compensation from Austria-Hungary, hence peace is thought to be assured.

Co-operation, as applied to nations, promises to be an outstanding feature of the Twentieth Century. During the last few weeks the Newfoundland fisheries dispute was referred to The Hague tribunal, an institution established in the present century; an International Opium Commission concluded its investigations at Shanghai; and a Congress to consider the question of conservation of the national resources of North America was held at Washington.

The Senate of the United States, on March 11th, ratified the Boundary and Waterways Treaty, defining the rights and privileges concerning the boundaries between Canada and the United States. An important article of the treaty provides that any differences between the two countries, in regard to the waterways, etc., shall be submitted to an International Joint Commission, which, if necessary, shall make a report to the Government of the United States and Britain, the dispute, in turn, to be submitted, if still unsettled, to an umpire chosen in accordance with the procedure prescribed by The Hague Convention.

"What makes your hair snap so?" asked the child who was watching his father comb her hair. "Electricity," his mother cried. "We are a funny family," remarked the child after a few moments of thought. "The other day you said papa had wheels in his head, and now you've got electricity in your hair. If you put your heads together you might make an electric motor, wouldn't you?"



Frost Coiled Wire is the first choice the country over. For the past eleven years it has been used as horizontals in Frost Metal Lock Fences, and specimens of the fence constructed eleven seasons ago are standing as rigid to-day as when first put up. They are still the pride of the farm and their owners demand more of these goods each year. The past good record of this wire is a safe guidance for the future.

The same grade of Hard Spring Steel Wire is used for Stays and Horizontals in Frost Woven Fence. Provisions for give and take have been developed in a practical way. A Woven Fence without this elastic feature or springiness holds nothing in reserve for wear and tear, and will soon grow slack and unsightly. Fences made from materials with a reputation are the only safe kinds to buy.

When ordering your requirements don't ask for a roll of fence, but for a roll of Frost Elastic Springy Wire Fence that will give so many extra years of good service.

There is a hustling dealer in your neighborhood who makes a business of supplying Galvanized Gates and building Frost Fence. You will do well to get acquainted with him. If he is not known to you, write us.

Frost Wire Fence Co., Limited, Hamilton, Ont.

Manitoba Frost Wire Fence Co., Limited, Winnipeg, Man.

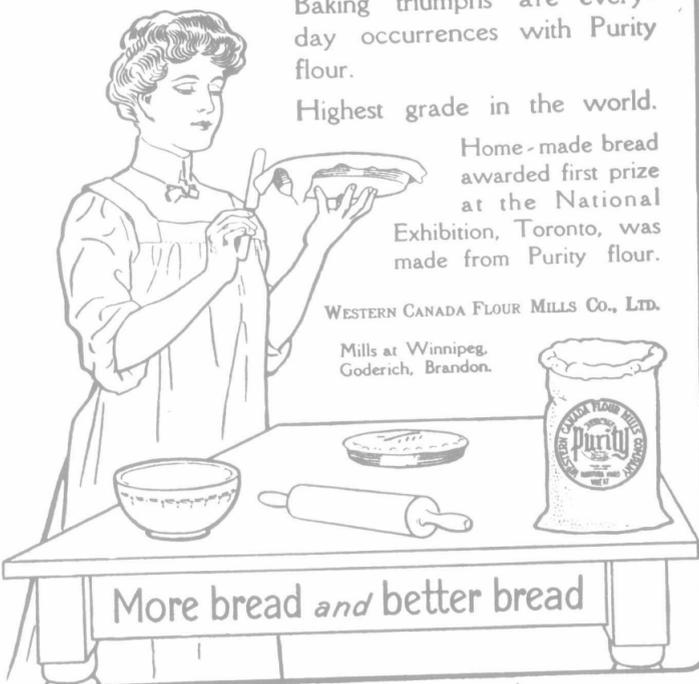
# "Frost" COILED WIRE

## PURITY FLOUR

Baking triumphs are everyday occurrences with Purity flour.

Highest grade in the world.

Home-made bread awarded first prize at the National Exhibition, Toronto, was made from Purity flour.



WESTERN CANADA FLOUR MILLS CO., LTD.

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## EUREKA SANITARY CHURN

There's no comparison between the ordinary wooden churn and the "EUREKA". Barrel is stoneware—top is clear glass. Besides being absolutely sanitary, the glass top enables you to see how the churning is coming along without opening the churn. The "EUREKA" is the easiest churn on the market to operate. By tilting back the frame until the weight rests on the wheels, the churn can be quickly and easily moved—while the barrel remains upright.

If your dealer does not handle the "EUREKA," do not take a substitute but write us for catalogue.

EUREKA PLANTER CO. LIMITED, WOODSTOCK, ONT.



HAVE YOU SECURED ONE OF "THE FARMER'S ADVOCATE" PREMIUMS

### PERTH SHOW AND SALE.

The annual show and sale of Shorthorn bulls at Perth, Scotland, the last week in February, was, evidently, very successful, 378 bulls being catalogued. The ages were calculated as from December 1st, 1907, and the dividing line between the two classes was March 1st, 1908. In the older class, the winner was C. M. Cameron's Balnakyle Maxim, a roan, by Christmas Star, a Newton-bred bull. Mr. Finlayson's Throsk Broadhooks, roan, by Holyrood, was second. The first-prize winner sold in the sale for 320 guineas, to Mr. D. McLennan, for South America; the second for 550 guineas, to the same buyer.

In the younger yearling class, Messrs. Peterkin won, with Hope of Dunglass, a roan, sired by the Heatherwick bull, Royal Hope, and said to have been the best bull in the show. He sold for 410 guineas, to Mr. Snowball, of Yorkshire. The second winner in this class was Mr. Buttar's (Corston) Rosewood Crown, a roan, by Nonpareil Crown. He sold for 120 guineas, while the fourth-prize calf in same class brought 225 guineas. The highest average, £200, was made by the Balnakyle herd, for the two bulls entered, Throsk being next, with four, which averaged £176. The 274 bulls sold averaged £37. At the Aberdeen sale the same week, 267 bulls sold for an average of £20, the highest price being 115 guineas.

### LONDON SHIRE SHOW.

At the English Shire Horse Show, held in London the last week in February, Lord Rothschild's three-year-old stallion, Halstead Royal Duke, was first in his class, and won the supreme championship for stallions. The same exhibitor's first-prize four-year-old mare, Chiltern Maid, was grand champion female. His Lordship's four-year-old stallion, Cattlegate Combination, first in four-year-old class, was reserve champion male, while Mr. Michael's first-prize aged mare, Pailton Sorais, was the reserve championship female, and the junior champion female was Mr. Williams' first-prize three-year-old, Barnfield's Forest Queen. In the class for stallions, 16.2 and over, four years old, and under ten, Lord Rothschild's Cattlegate Combination was first, and Earl Egerton of Tatton's Tatton Dray King, second. In the class for stallions, any age above ten years, Messrs. Forshaw were first, with the ten-year-old Lord Mayor II., and Lord Middleton second, with Normoor Victor, of the same age. In the three-year-old class, Lord Rothschild was first, with Halstead Royal Duke, by Lockinge Forest King, which seems to be the Baron's Pride of the Shire world. The second was Sir W. Greenwell's Marden Jameson, by Dunsmore Jameson.

## THE C. J. Daniels Milling Co., LTD.

Mills: 666 Queen St. East, Toronto, Ont.

I TAKE great pleasure in announcing to my host of friends, past, present and future, that I have opened up for business at the above address with a modern, up-to-date equipped mill for the preparing of a high standard of FOODS FOR POULTRY of all ages and for all purposes. Specially mixed balanced chick feed, laying food, scratching food and fattening and finishing food, positively guaranteeing them to consist of sound and wholesome grains and seeds. No waste products or inferior material of any kind will be used in their manufacture.

By the use of special machinery I am able to guarantee perfect mixing. An ordinary mill without this special machinery positively cannot duplicate nor equal these specially-prepared and properly-balanced foods.

I guarantee all foods to contain the proper ingredients in the right proportion to accomplish the result for which they are recommended. You can't afford to feed your chicks with poor foods. Don't try it. To introduce my Nursery Chick Food, I have decided to put it up in 25-cent cartons, each carton will also contain a small bag of spiced beef scraps. Meat food is needed for the proper development of the chick.

SCRATCHING FOOD contains a large assortment of cracked and small grains, and gives the hens just the assortment they need. A small bag of spiced beef scraps goes with Scratching Food carton, 25 cents.

My object in making up these cartons is to give the person who keeps a half dozen hens or raises a few dozen chicks a chance to test the quality of my foods. Knowing if this is done I have secured a life-long customer. If your dealer does not carry my goods, give me his name, and I will see you get it.

NURSERY CHICK FOOD in 100-lb. bags, \$2.75; Scratching Food, \$2.25 per 100 lbs.; FATTENING MASH, \$2.25 per 100 lbs.; EGG MASH, \$2.25 per 100 lbs.

### GRIT AND SHELL.

Fowls having no teeth, grit is necessary as food—without it the food cannot be digested. Price of DIAMOND GRIT, 75 cents per 100 lbs., or 60 cents per 100 lbs. with feed orders; two sizes, chick and poultry. Price of OYSTER SHELL, 80 cents per 100 lbs., or 65 cents per 100 lbs. with feed order.

No poultry plant, be it ever so small, is complete without DANIELS' CRUSHED CHARCOAL. Keeps poultry healthy, prevents disease. We sell it so cheap that it can be sprinkled over the drop-board. Guaranteed to kill all smells in poultry-house. Chemically pure, the best thing known to keep poultry strong, healthy and in good laying condition. Prevents disease. Nature's own purifier and disinfectant. Price, 50-lb. bag, 60 cents; 100 lbs., \$1.00, f.o.b. Toronto.

SEND FOR MY BOOK, "POULTRY FOR PROFIT, AND HOW TO FEED."

Mention Advocate.

## YOUR WASHING DONE FREE

### WASH DAY A JOY

when you have a "1900 Gravity" Washer in your home. Do let me tell you all about it. So many women have been saved the drudgery of wash day by using it that I won't be satisfied until every woman in Canada has one. It only takes six minutes to wash a whole tubful spotlessly clean, and without wear or tear—then it will wash the finest linen or the heaviest blankets. To prove my claims I will send without one cent of cost and prepay the freight, a "1900 Gravity" machine to any responsible woman for 30 DAYS' FREE TRIAL.

Do your week's washings with it, then tell me how you like it. Write to-day and address me personally.

F. A. T. BACH, MANAGER, THE 1900 WASHER CO.,  
357 YONGE ST., TORONTO, CAN.

1464

## THE 1900 WASHER

### QUESTIONS AND ANSWERS.

1st.—Questions asked by bona-fide subscribers to "The Farmer's Advocate" are answered in this department free.

2nd.—Questions should be clearly stated and plainly written, on one side of the paper only, and must be accompanied by the full name and address of the writer.

3rd.—In Veterinary questions the symptoms especially must be fully and clearly stated, otherwise satisfactory replies cannot be given.

4th.—When a reply by mail is required to urgent veterinary or legal enquiries, \$1.00 must be enclosed.

### Miscellaneous

#### CEMENT FOR HOUSE WALL.

How many cubic feet will a barrel of cement build at the rate of one to ten, or is that rich enough for house wall eight inches thick? It is good gravel.

J. P.

Ans.—If you have high grade cement and sharp sand and gravel, one part of cement to ten of sand and gravel will suffice. A barrel of cement is approximately four cubic feet, and as the cement adds nothing to the bulk, it could not be expected that more than forty cubic feet of wall could be constructed from one barrel. The fact is, there always is a waste, and something has to be allowed for compression, so that builders claim that a barrel of cement used 1:10 will build 35 cubic feet of wall.

## SIMMERS' SEEDS

ESTABLISHED 1856

WE KEEP abreast of the most advanced European and American developments in the SEED business. Constantly in communication with the world's best growers. We list in our new 1909 catalogue a selection of the newest and most up-to-date Field, Vegetable and Flower Seeds, and the old and well-tried varieties are by no means neglected. It is only by constant selection and hybridization that the strains of the old favorites are improved.

We have been in business for over 50 years, and the results of our efforts are detailed in our New Seed Book. We venture to state that our catalogue will be found a mine of information. It is particularly easy to refer to. Ask for one. A post card will do.

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

HAVE YOU SECURED ONE OF "THE FARMER'S ADVOCATE" PREMIUMS

### ALSIKE STRAW FOR FEED—WOOD ASHES ON CLAY-GALVANIZED SHINGLES—TIMOTHY AND CLOVER MIXTURE—DOES TAPPING TREES SHORTEN LIFE?

1. Last September I had eight acres of red clover for seed, which I cut one day, and put in the next. It was fine weather, and dry. I threshed 15 bushels of seed, and I am mixing the clover chaff with cut oats and straw, which makes good feed for stock—as good as chop on it, I think. Could I cut alsike in the same way, and would it make as good feed for stock after being threshed?

2. Does wood ashes improve the quality of clay soil; ashes mostly soft wood, and kept in a brick, dry place?

3. What kind of galvanized shingles would you recommend?

4. What proportions of red clover, alsike and timothy would you recommend for ten acres for a good hay; also for seed?

5. Does tapping maple every year shorten the life of the tree? W. S.

Ans.—1. No doubt the clover chaff from crop sowed as yours was, is of considerable feeding value, but it scarcely can be as good as chopped grains. The protein contained, however, makes it valuable, and thrown on the other feed you will find good results. Alsike is harvested and threshed the same as red clover, but the straw and chaff is not so desirable for feeding purposes. It seems to be more woody, and, in addition, it causes digestive troubles, if fed in large quantities. There is an objectionable dust.

2. Wood ashes are beneficial on clay soils because of the action of the lime contained. The value will depend on what variety of wood it is from. Ashes from soft woods are lighter and more fluffy than those from hard woods, but they contain, on an average, about the same per cent. of lime. Wood ashes are, however, chiefly valuable for the potash they contain, and this is especially needed on light loamy or sandy soils.

3. Any of the galvanized roofings advertised in "The Farmer's Advocate" from time to time are satisfactory if put on as directed.

4. A mixture comprising 5 lbs. red clover, 2 lbs. alsike, and 3 lbs. timothy, will suit, on the average soil. It is usually well to err on the side of thick sowing rather than thin. With this proportion of clover, your hay crop the first year would be chiefly clover, and the timothy would come on to form the bulk of a second hay crop. Such mixtures cannot be advantageously grown for seed-production, as the crops do not ripen at the same time.

5. We have no data regarding the effect of annual tapping of the maple. It would be difficult to ascertain whether or not such is the case, because of the great number of years that go to make up the natural life of a tree. It can reasonably be expected that the removal of sap each spring would have at least a slight harmful effect. Then, too, there is the danger of decay setting in around the holes, and in this way shortened life of the tree would result.

### GOSSIP.

Eggs for hatching of such popular breeds as Buff Orpington, R. I. Red, S. C. White Leghorn, and S. C. B. Minorcas, are advertised by the R. Roy Poultry Farm, Elmira, near Berlin, Ont.

Mr. S. J. Lyons, of Norval, Halton County, Ont., announces an auction sale of 35 pure-bred Jerseys and 15 grades, fifty head in all, to take place about the end of March, the advertisement naming date of sale, etc., to appear in next week's issue.

### TRADE TOPIC.

Home-grown and hand-sorted corn of Compton's Early variety, is offered for seed purposes in this issue by W. B. Roberts, of Sparta, Ont. Mr. Roberts claims that it has proved to be early-maturing, and also a heavy producer of silage.

QUESTIONS AND ANSWERS.  
Miscellaneous.

RAPE OR ARTICHOKE.

I have two yards which I have arranged for pasture crops for hogs. Each contains about three-quarters of an acre. Which would you advise as the most profitable crop? I thought of rape and artichokes, but I wouldn't get much from the artichokes until fall, would I?

J. W. W.

Ans.—Why not sow one yard to rape and the other to artichokes? The rape could be used for summer pasture, and in September the artichokes would be ready. A great deal would depend on the nature and condition of your soil. With fairly rich loam, it would be difficult to select better crops for summer and fall feed than rape and artichokes. One objection to rape urged by some swine men who have tried it, is that the rape causes an irritation to the skin, especially about the ears. This is believed to be due to pasturing when the rape is wet and its cells turgid with moisture, the stiff leaves causing an irritation, aggravated by some property or other in the juice of the rape. By pasturing when the rape is free of dew and slightly wilted, the trouble seems to be avoided, or, at least, greatly minimized.

CORN FOR RUSSELL COUNTY.

1. What varieties of corn and how much of each would you advise sowing for silo purposes? I intend putting in eleven acres of corn this year.
2. What do you recommend, sowing in rows with grain seeder or marking the field both ways and planting with planters? What distance apart?
3. How much corn is necessary to seed an acre in each of the aforementioned systems, and how many grains to the hill in the latter?
4. What variety of corn do you advise sowing for early summer feeding to dairy cows, and how early should same be sowed?

M. S.

Russell Co., Ont.

Ans.—1. Longfellow, White Cap Yellow Dent, or perhaps Early Leaming, should suit your locality. Ascertain what your neighbor's experience has been, and choose the latest variety that may usually be depended upon to mature to the late-dough stage.

2. Each system is favored by many. Hill-planted corn is easier to keep clean, can be planted more thinly, usually ears better, and is easier to harvest with hoe or sickle. Mark the field in squares 34 feet apart.

3. With good strong seed a bushel of average corn will sow four or five acres thickly enough for ensilage purposes when put in on squares, while with a drill the quantity sown would be greater. The number of grains in a hill will depend on the quality of the seed. Four or five sound plump kernels are recommended.

4. Any of the varieties already mentioned are suitable. Sow as soon as the ground is fit and danger of serious frost is past.

AN INSPIRATION FROM CASEY.

The women of the church in a suburb in Chicago were soliciting money to pay for redecorating their house of worship. They were told, diplomatically, that if they would call on Casey, who kept the leading saloon in the village, they might get a good donation. They called. Casey met them genially, listened to what they had to say, and promptly subscribed five hundred dollars. This was so much more than the solicitors had hoped for that they were much flustered, and could do nothing but stammer their thanks. Finally one of them rounded to and said: "Why, Mr. Casey, this is most generous of you. It will allow us to get what we want very much—a fine stained-glass window."

Casey thought that would be the right thing to do.

"And, Mr. Casey," said the spokeswoman, "in view of this magnificent donation, isn't there something you would like to put on the window, some sentiment or some remembrance, or something of the kind?"

"Well," said Casey, "I think it would be fine to have on th' glass, bechune 'n' two parts av it, 'in nate leathers, smethin' loike this: 'Ather Mass Visit Casey's'."—Saturday Evening Post.

GOSSIP.

The British Royal Commission on animal tuberculosis has just issued its third interim report. The report states that tuberculosis of the udder is comparatively common amongst cows, and that milk from such a source is dangerous to human beings. Milk drawn from infected udders contained tubercle bacilli, even when drawn through sterilized tubes. The experiments indicate that the excrement of cows suffering from tuberculosis of the lungs, or the alimentary canal, is much more dangerous than discharges from the mouth or nostrils. The presence of infected cows in company with healthy cows in the cow shed is said to be distinctly dangerous.

For the first time in six years, British external trade returns show a decline, the grand total for 1908 being £101,000,000 less than in 1907, which was an exceptionally prosperous year. How dependent Britain is on outside sources for food supplies is shown by the enormous figures relating to the principal necessities.

Grain and flour imports reached a value of over £72,000,000, and meat, including animals for food, exceeding £49,000,000.

Wheat imports were 91,132,705 cwts., and of maize, 33,841,000 cwts. were received. Cattle numbered 383,130, against 472,015 in 1907—a considerable decrease.

Butter imports were practically unchanged at 4,211,195 cwts., but cheese showed a slight decrease to 2,306,086 cwts.

Bacon increased slightly, to 5,685,742 cwts. Imports of wool were 719,074,887 pounds.

The total imports for the year were valued at £593,000,000; exports were £377,000,000, and re-exports, £80,000,000, and the total external trade was thus £1,050,000,000—a stupendous business, in spite of the decrease.

The further conference in Britain on the meat-traders' demand, that farmers warrant their stock free from disease, has proved abortive, and no settlement was reached. The deadlock came upon the question as to upon whom should fall the cost of the insurance. It remains to be seen whether the Meat-traders' Federation will carry out their threat and boycott all British-bred meat unless sold with a warranty. Agriculturists do not believe that such a boycott could be made effective.

Action has been taken locally in several cases. In the Carlisle district, the butchers, farmers and auctioneers have formed a joint protective association, with an assurance scheme to cover the cattle warranty question. The Newcastle Farmers' Club recommends that sixpence be paid by sellers, in addition to the usual "luck" shilling, and that this one shilling and sixpence be paid as a premium to insure against loss.

MORRIS COMPANY COMING TO CANADA.

An important deal is reported to have been carried through in Calgary, Alberta, by which the Morris Company, of Chicago, have acquired the entire holdings of the Dominion Meat Company of that city. The Morris people are reported to be buyers of a large tract of land near Nose Creek, north-east of the city, where the plant of the Dominion Meat Company is located.

Just when the company will take charge of the business has not been made public yet, but the change is expected to take place shortly. It is reported that extensive additions will be made to the plant. The new abattoir will be built and very large stock-yards laid out. A large piece of property will be set apart for homes for the employees of the company. It is reported also that one block of 160 acres has been purchased at \$200 an acre, and another block of 80 acres bought at \$300.

"Mrs. Pugsley doesn't seem to like Mrs. Pinkley."

"No. She can't forgive her."

"Why, what was the trouble?"

"Mrs. Pinkley had a remarkably good cook and Mrs. Pugsley coaxed her to leave Mrs. Pinkley. Then Mrs. Pinkley got a still better cook."

Faded Curtains and Draperies Made New with Diamond Dyes.

"For the last eleven years Diamond Dyes have been special home favorites with us, and have been a source of home comfort. Two weeks ago I dyed three pairs of curtains with great profit and satisfaction. I first colored two pairs of rusty and faded cream lace curtains a delicate shade of light pink for bedroom windows, using your Diamond Dye Pink for Cotton. I also dyed a pair of tapestry portiere curtains, which after five years of wear had become very faded and unsightly. This pair I dyed a rich garnet, using Diamond Dye Garnet for Cotton. I may say that in my estimation, Diamond Dyes are the best I have ever used."

Mrs. Emma M. Sharpe, Toronto, Ont.



Read Mrs. Wilkinson's Experience:

"When we furnished our house two years ago, I bought old-rose draperies for between the doors, and old-rose silk sash curtains for the library and dining-room windows. They were very pretty, but began fading within a few months.

This spring they really looked so bad that I thought I would have to get new ones. Then I thought of Diamond Dyes and decided to try dyeing them all a dark green. My husband laughed at me, but when they were finished he said they were a good deal prettier than the old-rose and so much more restful."

Mrs. A. M. Wilkinson, Philadelphia.

Important Facts About Goods to be Dyed:

Diamond Dyes are the Standard of the World, and always give perfect results. You must be sure that you get the real Diamond Dyes, and the kind of Diamond Dyes adapted to the article you intend to dye.

Beware of imitations of Diamond Dyes. Imitators who make only one kind of dye, claim that their imitations will color Wool, Silk or Cotton ("all fabrics") equally well. This claim is false, because no dye that will give the finest results on Wool, Silk, or other animal fibres, can be used as successfully for dyeing Cotton, Linen, or other vegetable fibres. For this reason we make two kinds of Diamond Dyes, namely: Diamond Dyes for Wool, and Diamond Dyes for Cotton.

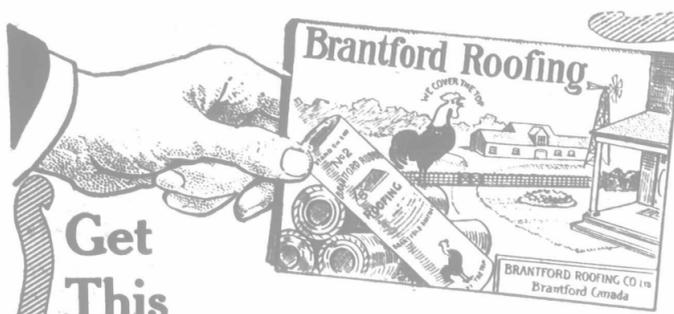
Diamond Dyes for Wool cannot be used for coloring Cotton, Linen, or Mixed Goods, but are especially adapted for Wool, Silk, or other animal fibres, which take up the dye quickly.

Diamond Dyes for Cotton are especially adapted for Cotton, Linen, or other vegetable fibres, which take up the dye slowly.

"Mixed Goods," also known as "Union Goods," are made chiefly of either Cotton, Linen, or other vegetable fibres. For this reason our Diamond Dyes for Cotton are the best dyes made for these goods.

Diamond Dye Annual—Free. Send us your name and address (be sure to mention your dealer's name, and tell us whether he sells Diamond Dyes), and we will send you a copy of the New Diamond Dye Annual, a copy of the Direction Book, and samples of dyed cloth, all FREE.

WELLS & RICHARDSON CO., LIMITED  
200 MOUNTAIN STREET, MONTREAL, P. Q.



## Get This Big Roofing Book Free!

Any man who intends to roof a building this season cannot, or, at least, should not, make his final decision until he has studied the information contained in our handsome new catalogue.

Many of the facts stated in our Catalogue are often over-looked—with sometimes costly results—when selecting the roofing material.

Yet these facts are so very important you should, for your future peace of mind, make it a point to become thoroughly familiar with them.

It will cost you nothing to do so.

We don't ask a single cent for our new Catalogue, though it cost us a deal of money to prepare it.

Simply get a post card and address it now.

We'll send the catalogue promptly—and any further information you desire.

BRANTFORD ROOFING CO.  
LIMITED  
BRANTFORD CANADA

### GOSSIP.

E. D. George, Putnam, Ont., advertises Ohio Improved Chester White hogs of the largest strains. This is one of the oldest-established registered herds in Canada.

Farmers and others requiring nursery stock for spring planting will do well to look up the advertisement of the old and reliable firm of A. G. Hull & Son, St. Catharines, Ont., and send for their free catalogue of prices of fruit and ornamental trees, roses and shrubs, which includes the latest and best varieties. They employ no agents, and buyers save the agent's commission by dealing direct with the nurserymen.

Registered imported and Canadian-bred Clydesdales, the property of R. B. Pinkerton, Essex, Ont., are advertised in this issue to be sold at auction on March 18th, at the farm, half a mile west of the town of Essex, on the Michigan Central Railway and W. E. and T. S. Electric Line. The sale includes three imported mares, from two to four years old; one Canadian-bred stallion, six years old; Canadian-bred mare, four years; filly, and entire colt of 1908, besides other well-bred Clyde mares and geldings.

Mr. Robert Miller, Stouffville, Ont., under date March 3rd, writes: "Just a few words to say that I am still doing a little business. When we have a public sale, people are apt to think that we sell all we can spare. I have never been in that fix yet. The day before yesterday I sold a good bull from imported sire and dam. Yesterday I sold a good, straight Scotch cow; to-day I sold one of the best Shropshire ewes I had, for show purposes. Am having a lot of inquiries from old customers, and have Shorthorns and sheep of all ages and sexes, but just one quality, and can sell them at a price that ought to be inducement enough."

### TRADE TOPICS.

The William Rennie Co., seedsmen, Montreal branch, advertise that they want to purchase seed of corn-wheat and grass peas, and solicit samples sent.

The Imperial Bank of Canada has opened a branch in Cochrane, Ont., the new town located at the junction of the Transcontinental and T. & N. O. Railways.

### DIRECT TO WESTERN CANADA.

The Canadian Pacific "Winnipeg Express," leaving Toronto at 10.15 p. m., daily, carries through standard and tourist sleeping cars for Winnipeg, the Northwest and Pacific Coast. This is the only direct, through-car service to Western Canada, trains run the entire distance through Canadian territory, and the time made is considerably faster than by any other route.

## Success Manure Spreader Has Light Draft Roller Bearings

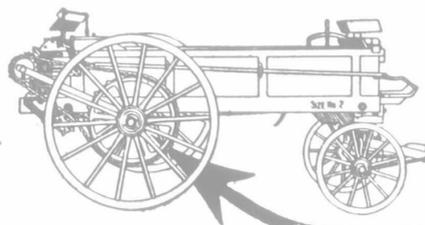
When purchasing a manure spreader you naturally look for the lightest draft machine, but you need look no farther than the "Success" spreader. The "Success" has always been the lightest draft manure spreader, and the recent introduction of Five Sets of Roller Bearings still further decreases the draft—places the "Success" far ahead of its competitors.

The arrows show you where these draft-reducing Roller Bearings are located—one set on either end of the rear axle, one on either end of cylinder shaft, one in the combination gear and sprocket. Thus, you see, the "business end" of the spreader—the mechanism that has the work to do—is made to run with the greatest ease and smoothness.

These "Roller Bearings" prevent the wearing out of boxes and other bearings—and add years to the life of the machine. They decrease the draft at least the equal of a horse.

These "Roller Bearings" are accurately cut out of cold rolled steel and rivetted together in substantial, durable boxes. They can be removed from the machine without coming apart. If you want the easiest running, most durable, greatest improved manure spreader in the world buy the New 1909 "Success."

**A** Simple instantaneous change of Feed Device. One lever moves a pinion from one row of teeth to another on a Disc Gear, without separating pinion and gear and no ground is skipped.



**B** Force Feed Worm and Gear Drive guarantees smooth and positive motion of the apron whether going up or down hill, or on level.

**C** Beater of "Success" is driven by Direct Steel-Pinned Chain Drive. This method makes "Success" lighter draft than any other spreader.

ARROWS ALL POINT TO ROLLER BEARINGS ON BUSINESS END OF "SUCCESS" SPREADER.

### THE PARIS PLOW CO., LIMITED, PARIS, ONT.

Western Agents: The John Deere Plow Co., Ltd., Winnipeg, Regina, Calgary and Edmonton  
Agents for Quebec and Maritime Provinces: Frost & Wood Co., Ltd., Montreal, Quebec, St. John, N.B.

## IMPORTED AND CANADIAN-BRED CLYDESDALES BY AUCTION

On Lot 16, Con. 14, Colchester North, 1 1/2 miles from Essex, on the M. C. R. and W. E. & T. S. electric line.

THURSDAY, MARCH 18th, 1909.

R. B. PINKERTON will sell three imported mares, from 2 to 4 years old; one Canadian-bred stallion, 6 years old; one Canadian-bred mare, 1 year old; one filly and one entire, foals of 1908. This stock is registered in Scotch and Canadian Studbooks; also three well-bred Clyde mares and one gelding. All that have been exhibited are prizewinners.

TERMS OF SALE: 8 months' credit on furnishing approved bank notes, or 10 per annum discount for cash. Sale at 1 o'clock p.m.

GORMLEY & SPEECHLEY, Auctioneers, Essex, Ont.

For further particulars write to: R. B. PINKERTON, Prop., Essex, Ontario.

### QUESTIONS AND ANSWERS. Veterinary.

#### LUXATION OF PATELLA.

Two-year-old colt, after being kept in the stable overnight, has difficulty in moving his hind leg. I can hear a cracking sound. S. S.

Ans.—The stifle bone becomes partially or completely dislocated. You will have to blister the front and inside of the joint. Make a blister of 2 drams each of cantharides and biniodide of mercury, mixed with 2 ozs. vaseline. Clip the hair off the parts, tie so that she cannot bite them. Rub well with the blister once daily for two days, and on the third day apply sweet oil. Turn loose in box stall and oil every day. As soon as the scale comes off, tie up and blister again, and after that blister once every four weeks until she is turned out to pasture. V.

#### MISCELLANEOUS.

1. Colt had distemper when a sucker. It is now two years old and has a discharge from one nostril.

2. Mare was driven hard last summer, and in the fall she went lame in front. She has been idle all winter, but is still lame, but gets some better after going a mile or two.

3. Cow had three attacks of indigestion and now does not eat well. Give good tonic. P. M.

Ans.—1. The colt has nasal gleet and which is hard to treat. Give 40 grains each of sulphate of copper and sulphate of iron twice daily. If this does not cause an improvement in a month, get your veterinarian to examine it, as it may be necessary to perform an operation.

2. She is lame in the feet. Her coronets should have been blistered once monthly all winter. It is doubtful whether you will be able to effect a cure, but the symptoms can be lessened. Clip the hair off for two inches in height all around the hoof, and blister once every four weeks, as long as you can allow her to rest. If you cannot rest her, wear bar shoes and keep the feet soft by poulticing.

3. Take equal parts sulphate of iron, gentian, ginger, and nux vomica; mix and give a heaped tablespoonful three times daily. V.

#### FATALITY IN COLT — BOTS — WORMS.

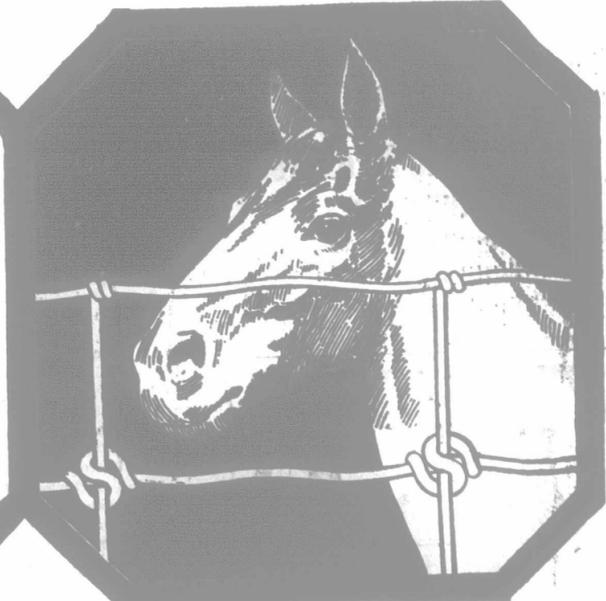
Two colts, well fed and comfortably stabled, were not doing well. At last they refused food. I gave them 1/2 pint linseed oil and 2 tablespoonfuls of turpentine, after which one passed some worms and seemed a little better, but the other one died. A post-mortem revealed a bunch of bots, which had eaten holes in the stomach. I repeated the dose to the other colt and it is doing better. What will cure bots and worms? R. H. C.

Ans.—The bots did not kill your colt; neither did they eat holes in the stomach. If you had examined carefully those that still clung to the stomach, you would have seen that they had hold with their tails. All horses that were exposed to bot or gad flies during the summer have bots. They let go when matured, and pass off with the feces. They don't cause sickness, except in rare cases where they exist in very large numbers and let gain large numbers, and forming a ball occlude the opening into the intestine, when symptoms of acute indigestion, in some cases followed by death, will be shown. Treatment for bots is not necessary, neither is it successful. When mature, they will act as stated. Nothing can be given the horse that will hasten their removal. The only precaution is to keep horses stabled during the daytime during fly time. It is very probable your colt died from digestive trouble, caused by intestinal worms. The treatment you have given is recommended, and gives fair results. I would advise the following treatment, which has tonic, as well as vermifuge actions, viz.: Take 2 ozs. each of sulphate of copper, sulphate of iron, calomel, and tartar emetic; mix and make into 24 powders; give a powder every night and morning, and after the last has been taken, give a purgative of six drams aloes in a pint of raw linseed oil. In the meantime, take good care of the colt, and feed reasonable quantities of anything it will eat. V.

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**QUESTIONS AND ANSWERS. Miscellaneous.**

**KICKING THE STALL.**

I have a draft mare that has acquired the habit of kicking at the stalls, caused by itchy legs. I have treated her for that trouble, but have not been successful. Please state if anything can be done to break her of that habit. G. L. S.

Ans.—See answer to similar query in March 4th issue, page 364.

**TRUSTEES OF RURAL SCHOOLS.**

May a member of the township council act as trustee in a rural school? F. B.

Ans.—There is nothing in the Ontario Schools Act prohibiting a trustee from acting in such capacity. The Municipal Act, however, states that a school trustee of an urban municipality may not at the same time serve as a municipal councillor. No prohibition, however, exists against rural trustees serving in similar capacities, so the answer to the question is "yes." A. H. U. COLQUHOUN, Deputy Minister of Education.

**COLIC, BLOAT, INDIGESTION.**

Please give good remedy for:

1. Spasmodic colic.
2. Flatulent colic.
3. Bloat in cattle.
4. Acute indigestion in horses.

L. A. G.

Ans.—1. In ordinary cases of spasmodic colic, a simple and generally effective remedy is: Raw linseed oil 1 pint, spirits of turpentine 1 oz., or 4 tablespoonfuls. A favorite remedy is tincture of laudanum and spirits of turpentine 1 oz. (4 tablespoonfuls) of each, ginger 1 tablespoonful, baking soda 1 tablespoonful; mix in a pint of warm water and give as a drench.

2. For flatulent colic, first remove by hand contents of the back bowel, then give injections of half a pail of lukewarm water, with a little soap, and a tablespoonful of spirits turpentine in it. And as a drench give laudanum 1 oz., spirits turpentine 1 1/2 ozs., raw linseed oil 1 pint, baking soda and ginger one tablespoonful of each.

3. For bloat in cattle, spirits turpentine 1 1/2 ounces, or six tablespoonfuls, in one pint raw linseed oil, is generally effective. If relief is not given in an hour, repeat the dose. A good plan is also to place a round piece of wood crosswise in the mouth, kept in place by a piece of rope attached to each end and passed behind the horns.

4. This is a serious complaint and requires prompt and vigorous treatment, as if relief is not given in reasonable time, there is danger of rupture of the stomach. First give as a drench, laudanum 1 oz., spirits turpentine 1 oz., raw linseed oil 1 pint. Have horse's belly well



**How a DAIN HAY LOADER and DAIN SIDE DELIVERY RAKE More than PAY for Themselves in One or Two Seasons**

HERE are actual hay-harvesting facts: A pretty big percentage of the hay-crop of the country is left in the field each season—value of the hay is lost in getting it into mow or stack—Lots of hay is left on the ground in shocking and pitching-out-of-the-shock—After you've got your hay out of the field by hand-loading, you can mark the location of every shock and windrows by the loose hay lying around—That's absolute waste. Another thing—either hand-loading or the ordinary loader and rake, scatter-off the leaves—and authorities all agree that much of the nutrition, the feeding value of hay, is in the leaf. Now, a Dain Hay Loader gets all the hay—either out of the swath or windrow—Two sets of raker-teeth gently gather all the hay from the ground and the elevating-fingers carry it up the elevator onto the load—well forward—where one man can easily handle it—it cannot drag the hay back off the wagon like the return carrier Loader will do. And there's  
And it is the smoothest and lightest-running—lightest-draft loader on the market—It works close up to fences and ditches—And over any kind of ground. It is hammock or swing mounted—which saves it from all "racking" and jar.  
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The Dain Rake has three sets of raker-teeth, which take the hay up clean without thrashing it. These tools save enough hay in one or two seasons to pay for themselves.  
Both loader and rake are substantially and dependably constructed throughout—The name Dain on any hay tool assures superiority at every point.  
Your implement dealer will show you how these tools "work"—Or write us—we'll tell you about them.  
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hand-rubbed, blanket him well, apply mustard-plaster to the stomach. If relief does not come in an hour and a half, give a drench of aloes 8 drams, spirits nitre 2 ozs., ginger 1 tablespoonful, baking soda 1 tablespoonful, in a pint of warm water.

**PASTURE FOR PIGS.**

Can you inform me if rape will make good pasture for hogs, and, if so, what is the best time to sow it; or is there any other seed to be sown in the spring that would make good pasture for hogs? R. N.

Ans.—Rape makes good pasture for pigs, but an earlier, and perhaps better pasture, is a mixture of oats and vetches, which may be sown as early as the land is fit to work. Two or three bushels of oats to one of vetches, or two of oats, one of wheat, and one of vetches, makes a good mixture. Rape may be sown with this mixture (as the seed is cheap) at the rate of three or four pounds to the acre, and may help the pasture later on. Rape is, however, generally sown alone, and in drills about 22 inches apart, at the rate of two lbs. per acre, and cultivated between the rows to cause more rapid growth. But on good, clean soil, it may do well sown broadcast at the rate of four or five pounds per acre. It is generally sown in June, but may be sown any time in May if the land is in good condition.

**CROSS BREEDING — PERMANENT PASTURE — ALFALFA IN ORCHARD.**

1. Is it advisable to cross a pure-bred Holstein cow with a pure-bred Ayrshire bull?

2. I have a heavy clay field which I am thinking of seeding to permanent pasture. Would alfalfa, mixed with red clover, make permanent pasture?

3. Would you advise seeding an orchard to alfalfa? SUBSCRIBER.

Ans.—1. Usually not, if there is a registered bull of the same breed within reasonable access.

2. The alfalfa might prove fairly permanent, but the red clover certainly would not. Even were one sure of maintaining a good stand of alfalfa from year to year, it would still be open to objection from the standpoint of a grazing meadow, as there is a certain degree of risk of bloating from cattle or sheep pastured on alfalfa alone. Mixed with grasses, the danger is obviated. We would suggest a modification of Prof. Zavitz's permanent-pasture mixture, which is orchard grass 4 lbs., meadow fescue 4 lbs., tall oat grass 3 lbs., timothy 2 lbs., meadow foxtail 2 lbs., alfalfa 5 lbs., alsike clover 2 lbs., white clover 2 lbs., making a total of 24 lbs. per acre. In your case we would recommend sowing 1 lb. less of each of the grasses, and 5 lbs. more alfalfa seed.

3. No, alfalfa is so deep-rooted, that it robs the trees of plant-food and moisture, thus seriously injuring them, and in some cases resulting in their death.

## Nitrate of Soda

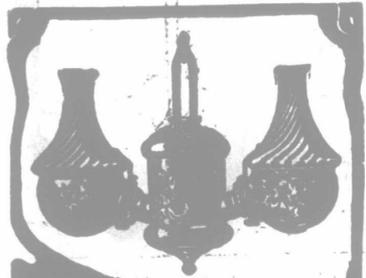
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## Vinemount Creamery FOR SALE

THOMAS BURROWS, Auctioneer, will sell under mortgage the Vinemount Creamery, otherwise known as the Vinemount Butter & Cheese Factory, on

SATURDAY, MARCH 20th, 1909,

At noon at his auction rooms, 11 Rebecca street, HAMILTON, ONTARIO.

The creamery is equipped with modern machinery, 24-h.p. boiler, 16-h.p. engine, with modern pasteurizer and separators. Buildings cement-concrete, with large grain chopper in connection. There is a good water supply and good drainage. Fresh-water pond within 20 feet of building for ice and water for boiler. The property comprises one acre, part of lot 8 in the fourth concession of the Township of Saltfleet, in the County of Wentworth. It adjoins Vinemount station on the T. H. & B., 17 minutes by rail from Hamilton and 1 hour and 15 minutes from Toronto.

The territory is capable of furnishing from five to ten tons of milk a day in good seasons. There is no better situation in Ontario for wholesale cream or ice cream trade with Hamilton, Toronto and Niagara Falls. A good opening for a man with a little capital and plenty of push.

For terms and conditions of sale, apply to

CHISHOLM & LOGIE,

Vendor's Solicitors, Hamilton.

Dated March 5th, 1909.

## New Telephone Directory

The Bell Telephone Company of Canada is about to publish a new issue of the

## OFFICIAL TELEPHONE DIRECTORY

For the District of Western Ontario, including London.

Orders for new connections, changes of firm names, changes of street addresses, or for duplicate entries should be handed in at ONCE to

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JOHN ELDER, Hensall, Ont.

## QUESTIONS AND ANSWERS. Miscellaneous.

### BUCKWHEAT FOR MANURE— WEAK PIGS.

1. If buckwheat is sown about the first week in May, will it be fit to plow down early in July to sow rape?

How many pounds should I sow to the acre?

3. What is the cause of sows not farrowing until seventeen months, and when they do, the pigs are so weak they nearly all die? I fed them principally roots for two months, then gradually increased the meal, and let them rough it around the straw stack.

### CONSTANT READER.

Ans.—1. We should think that if sown before the middle of May, it would be ready to turn under by the middle of July, which would be time enough to sow rape for fall feeding. Readers who have tried sowing buckwheat thus early might relate their experience.

2. About three pecks.

3. This question is not clear.

### MARE OUT OF CONDITION.

I would like to know, through your paper, of something to make a mare's coat sleek and glossy, which is very dead and rough-looking? I am feeding straw, and three quarts of chop and bran three times a day. She feels good, but looks rough. I groom her once a day. Is oil cake good feed for horses, or is there any better meal for them?—If so, how much should I feed?

### SUBSCRIBER.

Ans.—Try feeding every evening a pint of ground flaxseed, mixed with four quarts of bran, made into a mash by pouring boiling water over it. We would also recommend giving her a carrot or two each day, if any are to be had. In the absence of carrots, a turnip, or even a mangel, once daily may be fed. Oil cake at the rate of  $\frac{1}{2}$  lb. or even 1 lb. a day, is good for horses, so long as it does not prove too laxative, but for an animal out of condition, we would recommend the ground flaxseed fed alone, or preferably in a mash as above suggested.

### SILO IN CORNER OF ROOT HOUSE.

1. I am anticipating building a silo. The most available place is in one end of a root cellar. Would it be advisable to make a square silo with rounded corners, and thus use the three walls of the cellar, which are about ten feet high and built of stone? Would the stone walls be all right if they were plastered with cement on inside? Could stone be used for the entire structure, or would you recommend using concrete for the building of the walls the desired height? With stones available, and cement at \$1.60 per bbl., which would be the cheapest, if stone could be used for entire structure?

2. What height would you recommend to build, with a 10x16 ft. base to feed from 40 to 50 cattle?  
G. P.  
Ans.—1. While a square or rectangular silo is not the best shape, still, considering that you already have ten feet of the wall to begin with, probably your best course will be to use the stone silo as a foundation for a cement-concrete superstructure. The stone wall will require to be plastered inside, and maybe washed every two or three years with a thin but rich cement mortar. Stone is not the best material for a silo, as the wall has to be rather thick to be strong enough, and even at that the silage is more inclined to freeze on the inside. You do not state whether gravel is at hand for the building of a concrete silo. With this available, we incline to think the cement silo would be cheaper, taking labor as well as material into consideration. In either case, the walls will require reinforcement with rods or wire especially at the corners, and inferiorly the angles will need to be rounded or beveled to avoid spoiling of the silage in the corners.

2. A silo 30 feet high, and 10x16 feet in diameter (inside dimension), if filled, settled and refilled, would provide a reasonable daily allowance of silage for 40 head of cattle for about five months of the year. In this case we would not advise building any higher. Better to put up another silo if more capacity is required, and in any case we would not use the existing wall unless it is well built, on a solid footing, and about eighteen inches thick.

## VARIETIES OF CABBAGE AND MANGELS.

1. What is the best kind of cabbage to grow for real early market? What is the best kind for keeping through the winter; also best way to keep same?

2. What is the best kind of mangels to grow for cows, something with large yield?  
S. & C.

Ans.—1. It is difficult to state what variety is best. Different soils give different results and, in addition, new varieties are being introduced from year to year by leading seed houses. Standard varieties for early market are: Early Jersey Wakefield, Early Summer, and Early Winningstadt. To get best results, of course, these would have to be started in greenhouse, hotbed, or other suitable conditions, in time to have stout, healthy, well-rooted plants, ready for setting out as soon as weather conditions permit. For keeping over winter, late varieties, that mature just before winter frosts come, are best. Standard varieties include Late Flat Dutch, Stone Mason, and Late Drumhead. They keep best in a cool, and not too dry, storage. Many bury them, heads down, in trenches, when winter sets in, and cover the trench with boards, and straw and earth on top. Care must be taken to locate the trench on high ground, with thorough drainage.

2. Yellow Leviathan has proved to be one of the heaviest yielders. Improved Mammoth Sawlog and Mammoth Long Red, also are good. Of recent years, however, sugar beets are being grown extensively for milk cows. Leading seed houses recommend varieties that are of superior merit. Giant White Feeding and Royal Giant are good.

### LUMP JAW—BUSHEL CRATE— ONION SETS.

1. I have a pure-bred heifer coming three years; quite recently she got a swelling about the size of a goose egg on the cheek, about two inches from her mouth. I examined the inside; it does not seem to be affected. This swelling broke two days ago, and is still running considerable matter. I have been washing it out with a five-per-cent. solution of carbolic acid. Do you think it is likely to be very serious? How would you advise to treat it?

2. Would you give me the dimensions of a bushel crate? I am thinking of making some. How would basswood do for slats?

3. When is the proper time to sow the seed for those little top onions, such as Yellow Dutch, so as to have them for planting the following spring? Any information re growing and handling them would be thankfully received. J. A. A.

Ans.—1. Evidently your heifer has actinomycosis or lump jaw. Insert five grains of corrosive sublimate, rolled in tissue paper, into the opening. In a few days you will be able to draw out some of the tissue formed by the growth; then inject a five-per-cent. solution of carbolic acid twice daily until healed. Give her iodide of potassium, internally, three times daily, starting with dram doses and gradually increasing by about 15 grains per day until her appetite fails, she drinks but little, tears come or saliva flows from her mouth. When any of these symptoms appear cease giving the drug. After three to five weeks repeat the treatment. It may be necessary to employ a veterinarian to cut the lump out.

2. Inside dimensions of a satisfactory bushel box are 18 inches long, 14 inches wide and 12 inches deep. Basswood, or any light strong timber, should suit your purpose.

3. Onion seed to produce sets is sown thickly in late spring on rather light land, lacking in fertility, so that they do not grow large and mature early in the season. Top onions are produced by planting bulbs, or bulblets, grown the previous season. You would find valuable information in "The New Onion Culture," by T. Grimes.

## GOSSIP.

Aberdeen Angus cattle, cows, heifers, and young bulls, are advertised for sale by Grape Grange Farm, Cherkburg, Gray Co., Ont. See the advertisement, and write the manager, Andrew Drummond, for particulars.



## HANDS COVERED WITH ECZEMA

"For three weeks I actually had to be fed like one feeds a baby, because my hands and arms were so covered with eczema that they had to be bound up all the time."

That is the experience of Miss Violet M. McSorley, of 75, Gore Street, Sault Ste. Marie. She adds: "I could not hold spoon nor fork. From finger tips to elbows the dreaded disease spread, my finger nails came off and my flesh was one raw mass. The itching and the pain were almost excruciating. I had three months of this torture and at one time amputation was discussed."

"Zam-Buk alone saved my hands and arms. I persevered with it and in the end had my reward. To-day, I am cured completely of every trace of the dreaded eczema, and I fervently hope that sufferers from skin disease may know of my case and the miracle Zam-Buk has worked."

Zam-Buk is without equal for eczema, ring worm, ulcers, abscesses, piles, cracked hands, cold sores, chapped places, and all skin injuries and diseases. Druggists and stores at 50 cents a box, or post free from Zam-Buk Co., Toronto, for same price. You are warned against dangerous substitutes sometimes offered as "just as good."

# Zam-Buk

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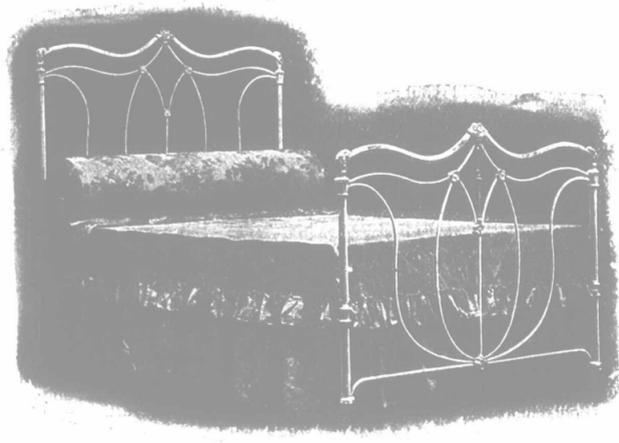
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to all points in Ontario; proportionate allowances made to outside points



ROMEO

All you have to do is order the "QUALITY" Bedstead you wish, (illustrated and named herein) enclosing price quoted. It will be PROMPTLY and SAFELY shipped to your R. R. Station, ALL freight charges PREPAID by us. WE take ALL the risk till it reaches your freight depot. If we have a dealer in your locality we will ship through him. After you use the "QUALITY" Bedstead 30 DAYS, if, in YOUR opinion, it is not exactly what you want, we will REFUND YOUR MONEY. There will be NO expense on YOUR part whatsoever—not even return freight. There will be no "ifs" nor "buts" about it—no excuses or reasons why you should keep it. YOU will be the judge—not us. That sounds like a fair

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The SUPERIOR construction of "QUALITY" Bedsteads PREVENTS that looseness and rattling so COMMON in OTHER Bedsteads.

Then, too, "QUALITY" Enamel is baked under a TREMENDOUS degree of heat—then subjected to the most SEVERE SECRET TESTS. This PREVENTS chipping, stickiness and soiling, which is UNAVOIDABLE in ORDINARY Bedsteads. "QUALITY" Bedsteads may be WASHED as OFTEN as desirable WITHOUT fear of injury to enamel or brass.

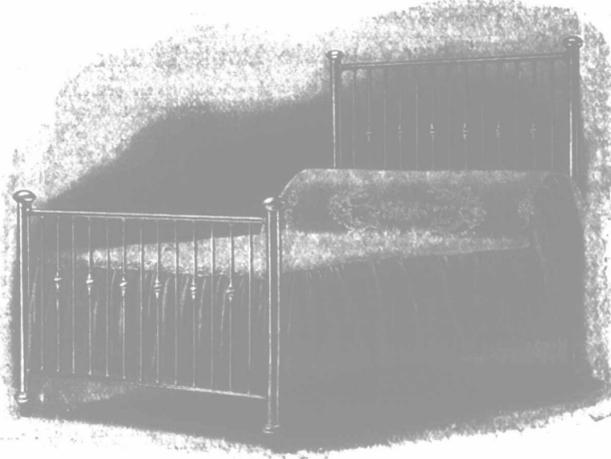
The excellence of construction—the artistic, graceful outline and beautiful finish of "QUALITY" Bedsteads lend an air of refinement and elegance to ANY Bed-chamber. We are so SURE of the superiority of "QUALITY" Bedsteads that we give you a FIVE-YEAR GUARANTEE—YET THEY COST YOU NO MORE THAN THE ORDINARY MAKES. THIS should be sufficient

to induce you to order a 30 DAYS' TRIAL of "QUALITY" Bedsteads! The name "QUALITY" IS STAMPED ON EVERY GENUINE "QUALITY" BEDSTEAD. This is done so that UNFAIR dealers CANNOT substitute or imitate. No matter WHAT style you may wish, we have it in "QUALITY" Bedsteads. Will you write for Booklet TO-DAY?

### Romeo Bedstead, \$7.00 Juliette Bedstead, \$26.67

This "QUALITY" Bedstead is constructed with steel tubes and bars joined together with artistically moulded castings, all combining strength and beauty. The posts are 1 1/2 inches in diameter. The height of the Head-Board is 59 inches; Foot-Board, 41 inches. Made in three widths—4-6, 4-0 and 3-6. Ornate brass spindle in centre. Finished in White or Green Enamel. Other colors, such as Blue Pink, etc., 50 cents extra. Vernis Martin Bronze, \$1.50 extra.

This entire "QUALITY" Bedstead is constructed with brass tubing. Strong screws and brass nuts hold the rods in place. The posts are 2 inches in diameter. Height of Head Board is 60 inches; Foot Board, 36 inches. Made in four widths—4-6, 4-0, 3-6 and 3-0. Finished in bright gold or dull old brass. The lacquer used is strong and clear, covering the brass tubes completely. This lacquer prevents the brass from tarnishing. No polish is required.



JULIETTE

Just drop us a letter addressed: **Quality Beds, Limited** WELLAND, ONTARIO.

### GOSSIP.

Clydesdale mares and stallions, imported and Canadian-bred, will be sold by auction at the Union Stock-yards, West Toronto, on Monday, March 22nd. An auction sale of milk cows will be held at the same place every Tuesday at 1 p. m.

Volume 26 of the English Hackney Studbook, thanks to the Secretary, Mr. Frank E. Euren, 12, Hanover Square, London W., has been received at this office. It is an exceedingly creditable volume, containing pedigrees of stallions numbering from 10505 to 10880, and mares from 19693 to 20395.

The world's record of production for a Jersey cow, 3 years, and under 3 1/2 years old, and with first calf, is claimed for Hood Farm Trut, whose record from January 21st, 1908, to January 23rd, 1909, is 9,963 lbs. milk, 544 lbs. fat. Average percentage of fat 5.46. Estimated butter on basis of 85 per cent. fat, 610 lbs.

#### GOOD SALE OF PERCHERONS.

At the thirteenth annual sale of Percheron horses from the stud of H. G. McMillan, at Sioux City, Iowa, on February 23rd and 24th, four head sold for \$1,000 to \$1,250 each. Only seven stallions out of thirty-eight sold below \$400. Three ranged between \$825 and \$935; thirteen mares and fillies fell below \$400; but one reached \$1,000, and the remainder, with few exceptions, sold between \$400 and \$600. Considering that seventeen of the stallions and over twenty of the fillies were yearlings, the range of prices shows how very popular are the Percherons where they are best known.

## SAVE 20c PER SHEEP

With NEW STEWART SHEARING MACHINE With 4 combs & 4 cutters, only \$12.75  
If you have but five sheep it will pay you to own this wonderful shearing machine. It does not cut or hack sheep like hand shears, and gets one pound and over more wool per head. It shears any kind of wool easily and quickly. WE GUARANTEE IT FOR 25 YEARS. All gears are cut from solid metal, not cast; all wearing parts are file hard; spindles are ground and polished, and the driving mechanism is enclosed from dust and dirt and runs in oil. 95 per cent of all the shearing machines used in the world are Stewart patents. If your dealer does not have it, send \$2 and we will ship C.O.D. for balance. Send for a copy of our free book "How to Shear Sheep," and our big new catalogue showing the largest line of shearing machines on earth. Write today. Chicago Flexible Shaft Co., 110 La Salle Ave Chicago

The imported Clydesdale stallion Hector (11371), owned by Mr. Wm. Squire, Mitchell, Ont., is advertised to be sold by auction on March 18th.

#### SALE DATES CLAIMED.

- March 15th.—H. Arkell & Son, Arkell, Ont.; Oxford Down ewes.
- March 16th.—D. A. James, Nilestown, Ont.; Ayrshires.
- March 17th.—Joseph Fletcher, Oxford Mills, Ont.; Shropshire sheep.
- March 18th.—Wm. Squire, Mitchell, Ont.; imported Clydesdale stallion.
- March 18th.—R. B. Pinkerton, Essex, Ont.; Clydesdales.
- March 22nd.—At Union Stock-yards, West Toronto; Clydesdales.

Volume 30 of the English Shire Horse Studbook, recently issued, has been received at this office. It is a substantial volume of over 1,100 pages, containing pedigrees of stallions numbering from 25800 to 26858, and of mares from 55857 to 58902. Also a list of the members of the Society, of which the Secretary is Mr. J. Sloughgrove, 12 Hanover Square, London W.

### TRADE TOPICS.

#### NO CHANGE OF CARS

going to the Northwest by the Canadian Pacific direct line. Trains make fast time, no changes en route, no transfers or customs examinations. The route is attractive and interesting. Being the short line, the C. P. R. sets the standard for low rates. Special settlers' train service during March and April. Ask agent for particulars.

The well-known fence expert, F. L. Dyer, of Toronto, has written an instructive little manual that tells things every fence-buyer ought to know before he buys: "How to Test Wire—How to Build Fence." Readers of "The Farmer's Advocate" have a limited opportunity to get a copy of this useful book by sending ten cents (stamps or coin) to Mr. Dyer, King street and Atlantic avenue, Toronto; but, as the number of copies available at this nominal price are few, it would be as well to write for it at once. Mention that you are a subscriber to "The Farmer's Advocate."

### QUESTIONS AND ANSWERS. Miscellaneous.

#### STONE SILO.

Do you think it would be all right if a silo was built round, and well-plastered inside and out; if not, why? We have a great quantity of stone handy, and it would make a good silo, it would be cheaper than any other kind for me.

SUBSCRIBER.

Ans.—Such a silo, if well built, and plastered with cement, may give fairly good satisfaction. The cost, as compared with a concrete silo, may be greater than you think, for the reason that a well-reinforced concrete silo need not be over eight or nine inches thick at the bottom, tapered to four at the top, while a stone silo will require much thicker walls.

#### TREATING OATS FOR SMUT.

Give directions for treating oats for smut with formaline— J. B.  
Ans.—Spread the grain out on the barn floor and sprinkle until quite moist with a solution of a pound of formalin (a little less than a pint) in thirty-five gallons of water. Shovel over a few times, applying the solution while the grain is being turned. When all is well dampened, shovel into a conical heap and cover with old blankets for two or three hours. Then remove the blankets and spread the grain out to dry, stirring occasionally. After treatment, keep the grain free from reinfection with smut spores by contact of the grain with sacks, bins, drills, etc., in which untreated seed has been contained. It is better not to treat the seed many days in advance of sowing.

## Every Farmer ought to know more about Paint

Good paint is one of the farmer's best friends. Paint protects what he has and makes it earn more.

A dilapidated barn will protect neither stock, crops nor implements. Dilapidated implements will not do the best work. Exposure to weather causes the greatest dilapidation, and good paint is the greatest preventive of the effects of exposure to weather.

The successful farmer uses paint upon his house, barn, agricultural implements and wagons to make these things last longer. The longer they last, the more the profit from his farm.

It is not enough to apply paint. It is not even enough to apply good paint. The important thing is to apply the right paint.

Sherwin-Williams Paints and Varnishes offer to the farmer paints and varnishes each one the best for its particular purpose—wagon paint, implement paint, barn paint, paints for the inside and outside of the house, each the best of its kind and each peculiarly adapted to its use.

### This Valuable Book Is Free

A book, free to all farmers, tells all about these, explains the profit in using the right paint rightly, and tells where Sherwin-Williams Paints can be had.

## SHERWIN-WILLIAMS PRODUCTS FOR FARM USE

S. W. P. (SHERWIN-WILLIAMS PAINT, PREPARED)—for preserving good buildings.

S. W. CREOSOTE PAINT } — for prolonging the life of barns and other rough exteriors.

S. W. COMMONWEALTH BARN RED } — for prolonging the life of barns and other rough exteriors.

S. W. BUGGY PAINT— for refinishing the carriage.

S. W. WAGON AND IMPLEMENT PAINT— for preserving farm machinery.

S. W. ENAMEL LEATHER DRESSING— for renewing carriage tops and aprons.

S. W. PARIS GREEN } — for preventing destruction of crops by insects.

S. W. ARSENATE OF LEAD } — for preventing destruction of crops by insects.

S. W. MEDICINAL LINSEED OIL — for treating and conditioning of horses and other live stock.

**THE SHERWIN-WILLIAMS Co.**

LARGEST (BECAUSE BEST)  
PAINT AND VARNISH MAKERS IN THE WORLD

Address all inquiries to

639 Centre St., Montreal.

### TWICE AS STRONG

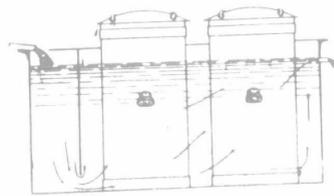
Hitherto, the weakest part of a woven fence has been the lock, but now we offer you a new fence with a lock which is the strongest part of whole fence. Notice that this lock not only securely grips the No. 9 lateral to the No. 9 stay, but that the ends of the lock are curved in such a manner that the lock practically interlocks itself, making it the strongest part of the entire fence, and giving it a double grip. A double grip means a twice-as-strong lock, a twice-as-strong fence, a twice-as-good an investment—and that is what you get in "Leader" fence.

You Can Make Money selling "Leader" fence in exclusive territory. Write us at once and we will make you an attractive proposition.

Frame & Hay Fence Co., Ltd. Stratford, Ont.

# Leader Fence Lock

## MILK COOLING TANKS



It has been demonstrated beyond contradiction that cooling milk down to at least 60 degrees, as early as possible after milking, is the only way to have your milk reach the factory in the best possible condition. This tank is made from Prof. Barr's drawings. It is galvanized steel, so it can't rust; thoroughly riveted and soldered, so it won't leak. Strong and light. It never gets water-soaked. Always clean and sanitary. No odors to taint the milk. No trouble to keep it clean. Pump the water into where cans are, and force the warm water at the top out through outlet, so you do not have to keep cooling the warm water at the top. Place a trough under outlet, and you can use water for stock.

Write us for prices and catalogue of Steel Troughs, Barn Tanks, etc.

THE STEEL TROUGH & MACHINE CO., LTD., TWEED, ONT.

### QUESTIONS AND ANSWERS. Miscellaneous.

#### GRASSES FOR BUSH SEEDING.

What grasses or clovers would you recommend to sow this spring in a hardwood bush, fairly open, which was burned over last fall, the object being to produce pasture; soil not wet?

J. H. B.

Ans.—Perhaps the best mixture would be Orchard Grass, Timothy and Kentucky Blue. The first-named has a tendency to grow coarse, and so should be sown in limited quantities. It is one of the best grasses for shaded locations. Some red clover, alfalfa, and common white clover also, might be added.

#### THUMPS — CONDITION POWDER.

1. I have some pigs running with sow about six weeks old, and four of them have died with the thumps. Is there any cure for them after they get it?

2. Can you give me a good recipe for condition powder for horses?

S. S.

Ans.—1. The ailment in pigs known as thumps is caused by high feeding and lack of exercise. Developed cases are practically incurable. Purge each with two to four ounces of Epsom salts, depending on size of pig. If purgation does not result, repeat the dose in twenty-four hours. Feed lightly on milk, bran and raw roots, and see that they get daily exercise.

2. Two ounces each of ferric sulphate, pulverized gentian, pulverized nux vomica, and nitrate of soda. Mix, and give a teaspoonful night and morning, in ground oats or bran. Also give two or three times a week a feed of boiled oats, and to the regular grain ration add a little oil cake, which is laxative, and aids digestion.

#### INDUCING HENS TO LAY—MAKING SHELL.

Our hens are not laying as well as we think they should. They have a good, comfortable house, facing the south, with plenty of light. They are fed as follows: Morning, some corn on cob, or, for a change, some mixed grain, composed of barley, peas, oats, and wheat; at noon, boiled mashed potatoes, mixed with chop; at night, some buckwheat, on straw, unthreshed. What is good to make shell? We give them some wood ashes; also all the good, clean water they can drink, with plenty of blood and meat.

R. H. C.

Ans.—The working hen is the laying hen. As a rule, the hen that is on the move from early morning until late evening, and is bright and active in appearance, is the one that produces most eggs. Of course, plenty of food also is essential. In winter, the hens are best kept active by feeding in such way as will cause them to work. Feeding corn on the cob, as you do, is one way. Another is giving the grain in loose straw or clover chaff, thus making them scratch for it. Some hang cabbage or mangels just high enough to coax the hens to jump for a bite. Plenty of grit also is wanted. This can be supplied in purchased grits, green bones, ground, or in fine gravel, or broken chinaware. Perhaps you would find better results by giving the buckwheat in the morning, and after they have picked through it for a while, throw in some of the grains. Then the corn could be given at night. Such treatment, along with occasional feeds of meat scraps, and with a box of lime at hand, and plenty of pure water and oyster-shell in a hopper to supply shell-making material, should produce a fair supply of hard-shelled eggs.

#### CHICKEN AND PIG AILMENTS.

1. I have a sow three years old. When she has pigs there is a red spot on root of their tails, and in a few days they dry up and come off, but it does not seem to hurt growth of pigs.

2. As I am a poultry breeder, I take great delight in inquiring about fowl. When chickens are taken from incubator to brooder they appear smart and healthy, but in a few days their wings droop and gradually die. I keep them rolled oats for first five days, followed by cracked wheat. What would you advise to do?

Ans.—1. The trouble is believed to be due to the loss of circulation of blood through the tail.

is advised that the root of the tail of the youngsters be greased or oiled, the day they are born, some friction being used in applying the oil to induce circulation. The same treatment may avert the loss of the tail, if it has not been too long neglected.

2. Without fuller description of symptoms we could only conjecture the cause. Send one or two dead chicks to the Bacteriological Laboratory, O. A. C., Guelph. It is probable the trouble is white diarrhea. If so, the fault is not in the brooding, but in the stock, or the incubator, or both. Try disinfecting the incubator before setting, with a standard disinfectant, and using moisture during the hatch, as advised through the poultry column of "The Farmer's Advocate." As a first feed for newly-hatched chicks, which, by the way, should not be given within thirty-six hours, a hard-boiled egg chopped fine, shell and all, mixed with three times its amount of stale bread-crumbs, is good. Stale bread, soaked in milk, and squeezed dry, is also good. A little later, add to the mash oat meal, bran, middlings, corn meal, or cooked potatoes. At three weeks, a few crushed kernels of grain may be allowed, increasing the quantity as they grow.

#### TRADE TOPICS.

With this week's issue, E. T. Carter & Co. have a change in their advertisement. Hides, sheep skins, calf skins, and all raw furs, are handled, and freight or express charges paid on shipments.

Quebec-grown raspberries and strawberries are offered for sale in this issue by C. P. Newman, of Lachine Locks, P. Q. The leading varieties are listed and reasonable prices quoted for stock that is guaranteed to be healthy and hardy.

The Vinemount Creamery, east of Hamilton, is offered for sale in this issue. Those in search of a creamery situated close to a good market should find out particulars.

Every lover of sport wants a high-class gun. Those who are in positions to speak with authority, recommend Stevens rifle and pistol telescopes. They can be fitted to any make of rifle by means of the telescope mounts. New attachments make them perfectly rigid under all conditions. A new side mount for high-power repeating rifles also gives thorough satisfaction. See J. Stevens Arms and Tool Company's advertisement, and write for particulars.

#### DO YOU WANT THESE BOOKS?

Everyone thinking of going out West should read the free booklets, "Settlers' Guide" and "Western Canada," published by the C. P. R. They contain a mine of information regarding the Northwest, crop figures, lands for sale, farming notes, good maps, freight and passenger rates, and particulars of settlers' train service during March and April. Apply at once for copies to local agent, or direct to R. L. Thompson, District Passenger Agent, C. P. R., Toronto.

#### GOSSIP.

At the Perth, Scotland, Aberdeen-Angus Show and Sale last month, the contribution of eight bulls from the Ballindaloch herd, of Sir John Macpherson Grant, made the fine average price of \$569. Four from the Eshott Hall herd averaged \$507, and nine from the Finlrig herd averaged \$459. The 262 bulls sold made an average of \$102.

Seated by the fireside, they talked of friendship.

"A friend is a balancing pole," said an athlete, "a balancing pole without which it is impossible to walk safely the tight-rope of life."

"A friend is a jewel," said a pretty girl, "that shines brightest in the darkness of misfortune."

"A friend is a gold link," mused a jeweller, "in the chain of life."

"He is a plaster," said the physician, "for the cuts of misfortune."

"Like ivy," said the botanist, "the greater the rain the closer he clings."

"A friend," said a sad-looking woman, "is the first person who comes in when the whole world has gone out."

# Every Safe Lock Shingle is made to meet the rigid requirements of the British Government for Admiralty and other Public Service



to proper size for Safe Lock Shingles.  
—The only shingle with galvanized edges.

—The only shingle sold with a positive protective guaranty against lightning, backed up by a free insurance policy signed and sealed by the manufacturers, the Metal Shingle & Siding Company, a \$200,000.00 Canadian corporation.

Every Canadian farmer who expects to put up a new barn or house or to re-roof old buildings is directly interested in this extraordinary free offer.

Think of it! A straight-out lightning insurance policy free from conditions of any kind. It is the most liberal roofing offer ever made to Canadian farmers.

Insurance records show that one-half the fire losses on barns in Canada result from lightning. The property loss in these cases amounts to many thousands of dollars every year.

Safe Lock Shingles have been on the market for more than ten years, and in all that time no building covered with them has ever been harmed by lightning.

This proves to us that Safe Lock roofing is a positive guaranty against lightning.

Anyway, we are willing to show our faith in Safe Lock Shingles and will protect you from lightning without one cent additional cost to you, directly or indirectly.

Safe Lock Shingles are sold at the same price as shingles known to be inferior in quality of steel, galvanizing and construction.

Safe Lock Shingles lock positively and securely on all four sides. They cannot be blown off, nor can they be pulled apart through the warping of the sheeting, or in any other way.

And remember this—  
No other shingle is a Safe Lock Shingle.

Safe Lock Shingles can be found in every part of the Dominion of Canada where they have been subject to storms of all degrees of severity.

No building covered with Safe Lock Shingles has ever been unroofed.

We want you to know what some of the users of Safe Lock Shingles say of them.

R. T. McLAUGHLIN, Fair View Farm, Alba, Ont.—“The ‘Safe Lock’ makes your shingles absolutely wind and water proof. They are the best shingles on the market to-day.”

F. B. DOUD, Branchton, Ont.—“The Galvanized Steel roof is apparently as good as when put on in 1898. The ‘Safe Lock’ Shingles make a lasting, storm-tight roof, and give clean cistern water. “I am satisfied that I put on a good roof.”

W. J. McPHERSON, Berryton, Ont.—“The ‘Safe Lock’ Shingles that I purchased from you ten years ago have given splendid satisfaction. The roof has never leaked a drop, and they seem to be just as good as the day they were put on.”

J. C. PAYNE, Cayuga, Ont.—“It must be ten years now since I bought the metal ‘Safe Lock’ Shingles, and up to this time I have no reason to regret their purchase. We have had wooden roofs put on since which are open in spots from the splitting and shrinkage of shingles. No difficulty, so far as I have noticed at least, has arisen with your Metal Shingles, and the roof seems compact and durable. So far as I have been able to see, I have seen no wear or injury to the shingles during the ten years’ use, and cannot see but that the roof is just as good as when it went on.”

MURDOCK McKENZIE, Bear Line, Ont.—“The ‘Safe Lock’ Shingles have never given me any trouble, and they appear to be as good to-day as the day I put them on. I am well satisfied with them, as I believe them to be the best roofing that can be used on barn buildings.”

GEO. HARDY, Ashgrove, Ont.—“It will be eight years in June since the barn was shingled. I never had any trouble with it in any way, and it appears to be as good as when put on. I have been recommending your shingles as the best that can be got.”

MRS. JAMES STEWART, Pendleton, Ont.—“In reply to your letter asking about shingles I bought from you over five years ago. I looked the roof all over to-day, and they seem to be in as good condition as when they were put on the roof. The shingles don’t seem to be any the worse for wear, and they will last for years.”

Send to-day for our book, “The Truth about Roofing” and full details of our Fire Insurance Policy payable in cash if your Safe Lock Roof is damaged by lightning.

The Metal Shingle and Siding Co. Ltd.  
“Roofers to the Farmers of Canada”  
Queen Street Factory, Preston, Ontario  
Branch Factory, Montreal

CUT OFF THIS COUPON AND MAIL TO US

My Roof measures.....ft.....in. long.

My roof measures.....ft.....in.

**The Metal Shingle and Siding Company, Limited**  
Queen Street Factory, Preston, Ontario

Please send me your booklet “Truth about Roofing,” with full particulars of your Free Safe Lock Lightning Insurance Policy.

Give length of roof along ridge; also distance from ridge to eaves, and we will send approximate cost of a Safe Lock Roof.

I expect to build..... Kind of Building.....

Size of Roof.....

If interested in any other Metal Building Goods please state such fact here.....

Name.....

P.O..... Province.....

THE British Government requires all galvanized steel roofing for Admiralty or other public work to be of specific grade and to be capable of withstanding a certain acid test.

The acids used for this purpose are strong enough to burn the skin off a man’s hand, and yet the galvanizing must be heavy enough to withstand their action for a definite period.

Exposure to wind, rain and snow for a quarter of a century is much less destructive than this acid test.

Yet every Safe Lock shingle is guaranteed to meet the Government requirement in this and all other respects.

No wonder that those who have used Safe Lock Shingles declare that they will last as long as the buildings they protect.

Safe Lock Shingles are the only shingles that actually lock on all four sides so that they cannot pull apart.

Shingles which do not lock on four sides are not Safe Lock Shingles.

Again: Safe Lock Shingles are the only shingles that completely protect the roofing nails from weather.

—The only shingles that have three thicknesses of steel along the upper edge of lock, thereby doubling the strength along the line of greatest strain.

—The only shingle galvanized after the sheets have been accurately cut

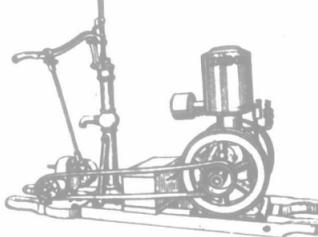
## Domo Cream Separators



Are better than all other separators and cost less than half.  
**Six sizes. Prices from \$15.00 to \$60.00.**  
Guaranteed, not simply as good, but BETTER. If needing one, my circulars, describing free trial offer, will interest you. Write to-day for Circular “A.”

**J. H. MORROW, BRIGHTON, ONT.**

No Fan that takes power to run.  
No Jacket that will freeze and break.  
No Tank to fill and empty every night, or every time you want to run.  
A self-contained engine that can be moved at a moment’s notice.  
2-2½ H. P. and 4½-5 H. P. Gas and Gasoline Engines.  
Catalogue 14 G explains all.



**SCOTT MACHINE CO., LTD.**  
LONDON, ONTARIO.



## MODEL Incubators and Brooders

AWARDED HIGHEST HONORS AT  
Toronto Industrial, Ottawa  
and  
Winnipeg Exhibitions.

Twelve Reasons Why YOU Should  
Use Model Goods:

1st. Because there are no other goods on the market just as good as the Model Goods.  
2nd. Because we give about double the value for money that other manufacturers do.  
3rd. Because you have no trouble in hatching good, strong, healthy chicks with the Model Incubators.  
4th. Because the Model Regulators are as near perfect as it is possible to make them. We claim we have the best regulator on earth.  
5th. Because you will find the Model the most simple machine to handle; no cut-offs or other devices. Model Incubators regulate themselves; once set will run a whole season without change.  
6th. Because you can go to your rest at night perfectly satisfied that the lamp and regulator will take care of the machine without the least anxiety or care on your part.

7th. Because all our machines are manufactured of the best hardwood (chestnut) with double walls, and packed with wool.

8th. Because the Model Goods are built for business, and to last a lifetime.

9th. Because we do not attempt to compete with a lot of the poor trash there is on the market.

10th. Because we want you to try us just once. We know if you do we have made a life-long customer.

11th. Because the Model Brooders take care of the chicks when hatched and rear them.

12th. Because we could fill a book with reasons why you should purchase Model Goods, but don't know one reason why you should not send us along your order and give us a trial.

Our 1909 catalogue is out, and it's free for the asking. Address:

The Model Incubator Co., Ltd., River St., Toronto.

# RENNIE'S

EARLIEST, HARDEST

## Farm and Garden

All dealers. In sealed packages. Catalogue free.

WM. RENNIE CO., TORONTO  
Montreal, Winnipeg, Vancouver.

# SEEDS

## Clip Your Horses in the Spring

It Pays—Clipped horses look better, feel better and do better work—Clip

### With the Stewart Ball Bearing Clipping Machine

The only ball bearing clipping machine made. Do not buy a frail, cheaply constructed clipping machine that will last you only a season or two, and give trouble all the time, when you can get this splendidly made, enclosed gear ball bearing machine for less than \$2.00 more. Every gear in this machine is cut from solid steel bar and made file hard. They all run in an oil bath, so friction and wear are practically done away with. It turns easier, clips faster, and lasts longer than any other clipping machine made.

WE GUARANTEE IT FOR TWENTY-FIVE YEARS.  
Price all complete, at your dealers, only \$9.75. Write for our big free catalog. Try this machine out side by side with any other machine on the market, at any price, if this is not worth three times as much, send it back at our expense both ways, we will refund every cent you paid. Send today.

CHICAGO FLEXIBLE SHAFT COMPANY, 110 La Salle Ave., Chicago

For Drain Tile, Red and White Building Brick  
AND CEMENT CHIMNEYS, WRITE:

R. J. DOYLE, OWEN SOUND, ONTARIO.

Subscribe for "The Farmer's Advocate and Home  
Magazine." \$1.50 per Year in Advance.

### QUESTIONS AND ANSWERS. Veterinary.

#### PROBABLY GROWTH ON PENIS.

Yearling bull bleeds from penis after service. C. K.

Ans.—It is probable there is a growth on the penis, and this bleeds. Get your veterinarian to make an examination and remove growth, if there be one, and if not, he will probably be able to ascertain what causes the hemorrhage. He should not be bred until this trouble ceases, as the repeated irritation is very liable to result in a chronic hardening and thickening of the organ, which may render him impotent. V.

#### MISCELLANEOUS.

1. Colt was kicked below hock last summer. After a while the swelling subsided. About six weeks ago the leg swelled again, and I cannot get the swelling reduced. He has long, white worms.  
2. Three-year-old mare has gone lame. She has sidebones. S. C.

Ans.—1. Purge with 8 drams aloes and 2 drams ginger, and follow up with 1 dram iodide of potassium, three times daily. If this affects his appetite, reduce the dose to 40 grains. Give regular work after the purgative has acted. For the worms, take 3 ozs. each of sulphate of iron, sulphate of copper, tartar emetic, and calomel. Mix and make into 24 powders. Give a powder every night and morning, and follow the last one by a purgative.  
2. Get your veterinarian to fire and blister the sidebones. V.

#### Miscellaneous.

#### COLOR OF HOLSTEINS.

Do registered Holstein bulls, when bred to grades of other breeds, breed true to color (black and white); or will some of their calves be red and white?

STORMONT READER.

Ans.—As a rule, Holstein sires are potent in the transmission of the color combination characteristic of the breed, but as in all breeds, variations will occasionally occur, when bred to grades of other breeds.

#### BALANCED RATION FOR COWS —GRAIN FOR COLTS.

1. What is a balanced meal ration for milch cows, along with timothy hay?  
2. What quantity of oats and bran is advisable to give growing colts, from six months to two years old. What other grain would you advise feeding?

R. J. MCG.

Ans.—1. Any one of a wide variety of combinations might be suggested, but having regard for economy, and the locality from which our inquirer writes, we would suggest for cows in full milk, oil-cake meal 2 lbs., bran 2 lbs., oat chop 3 lbs., gluten meal 1 lb. The quantity named is a daily ration, to be divided into two or three feeds. The meals may be mixed in the proportions named and a certain amount fed each time, or the oat chop and part of the oil cake given at one feed, and the balance of the oil cake, together with the bran and gluten meal, given at the second feed. Of course, the feeder will not commence with the quantities named, but will start with the bran, oat chop, and a very little of the more concentrated meals, increasing the proportion gradually. Some cows will not use the above quantities to advantage; others will make profitable use of more.

2. It depends upon the breed and individuality of the colts. Just to give an idea, we quote Henry's allowance of oats for colts of different ages.

Up to one year of age, 2 to 3 pounds per day.

From one to two, 4 to 5 pounds per day.

From two to three, 7 to 8 pounds per day.

If bran were fed the amount of oats might be reduced by nearly an equivalent weight. It is not necessary or advisable to feed much other grain to colts, although a small handful of red clover or flaxseed each day, will prove beneficial. A horse made plump and hard with potatoes and corn, and a few apples on the farm.

## It Is No Trouble To Work Now

So Says Miss Elsie J. Allen  
after using Dodd's  
Kidney Pills

She Suffered from Weakness and Kidney  
Trouble, but the old Reliable Kidney  
Remedy Cured her Completely.

St. Croix, N. B., March 8.—(Special).—That the pains and weakness which make life almost unbearable to so many women are easily and completely cured by using Dodd's Kidney Pills, is once more shown in the case of Miss Elsie J. Allen, of this place:

"I suffered greatly from kidney trouble and weakness before I began taking Dodd's Kidney Pills." Miss Allen says: "I was so weak I could hardly get around, and work was almost impossible. Life was a struggle till I heard of Dodd's Kidney Pills. I began taking them and soon felt better. I took seven boxes in all and they cured me."

"I can now do my work the year round and do not feel it. My back, which used to trouble me so much, is well and strong, and I don't feel any pains at all."

The root of women's troubles is in the kidneys. There is not a weak, suffering woman in Canada that Dodd's Kidney Pills will not help, and in nearly every case Dodd's Kidney Pills will work a complete cure.

## How Wall-papers can correct defects

PUT a tall "silk hat" on a table or shelf next the wall, crown up.

Ask a friend to look at it from a distance of ten feet or so and say how high it is.

Then remove the hat and ask him to place his finger on the wall at the height of the hat.

Now, push the hat under his finger and you will find he has placed it very much higher than the hat measures.

That is because of its peculiar shape, which creates an *Ocular Delusion* as to height.

\*\*\*

This same law of Illusion is made skilful use of by Decorators in the treatment and selection of wall-paper design.

Just as a striped suit will make a stout person look taller so will certain peculiarities in wall-paper design make a room look higher and narrower, or lower and wider.

Other peculiarities of Color and Design produce a dignified effect, or a cozy one, a chilling effect or a cheerful one.

Such use is called "Corrective Treatment," its object being to secure symmetrical effect and pleasing proportion in the room.

Knowledge of this kind has much to do with success, and with permanent satisfaction, in Home Decorating.

That is why a little book, by Walter Reade Brightling, just published, should be of decided interest and advantage to Home-makers.

\*\*\*

It tells how to use Wall-papers so as to make a room seem larger, smaller, wider, higher, lower, dignified, or cheerful, by the deliberate use of Ocular Delusion in certain forms of design or certain colorings.

There are Colorings in Wall-decoration which convey a distinct impression of Cheerfulness or Restfulness to the mind, while others convey a sense of Depression or Irritability.

Brightling's book entitled "Wall-paper Influence upon the Home" covers this subject acceptably for popular use.

It supplies information by which any Home can be made to look cheerful and restful at small cost.

The book is well worth a dollar though its costs only 25 cents at your wall paper dealers, or by mail from the publishers, Watson-Foster Co., Ltd., Ontario St., East, Montreal.

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**QUESTIONS AND ANSWERS. Miscellaneous.**

**CAPPED HOCK.**

I have a colt rising two years old with capped hocks. Can they be removed by blistering? If so, what is the best blister, and how often to use?

T. H. W.

Ans.—It takes time to remove capped hocks. The daily application of compound iodine ointment, with smart friction, will gradually reduce the enlargement. An operation by a competent veterinarian in many cases is successful, but it is not always wise to operate.

**THE MAPLE, OUR EMBLEM.**

I have been asked by a friend living in the United States for the reason of the choice of the maple as the emblem of Canada. Would you please inform me, through the columns of your paper, which is a welcome weekly visitor to our home.

J. D. G.

Ans.—The maple has been chosen as the emblem of Canada because of its many good qualities, its beauty, and the fact that, although found in some portions of the United States, it is especially indigenous to Canada.

**CHANGE OF P. O. ADDRESS.**

Can a person wishing to change his post office compel his present postmaster to forward his mail on to the new post office? A NEW SUBSCRIBER.

Ans.—Any person is at liberty to select a post office as his address, or to change his address to any other post office, provided such change is made bona fide; that is, without fraudulent intention, and postmasters are required by the regulations to conform to any change of address which is recorded with them.

It may be said, however, that the post office expects that when a person changes his address, he will notify his correspondents in order that his letters may go direct to his own address and not continue to pass through his former post office, and in case of newspapers from office of publication, the postmaster who has notified the office of publication of a change of address is not expected or required to forward newspapers to a new address after three months.

**MISREPRESENTATION OF COW.**

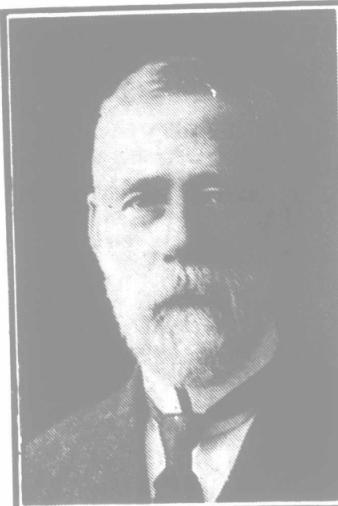
A buys a cow from B, on B's recommendation, and B tells A, in the presence of witnesses, that the cow is all right, and is a good cow in every way, and the only thing wrong with the cow, she got her jaw rubbed with a rope and made it sore, but that is getting better. A takes the cow home, and in a few days B dies, and after nearly one month, A has the cow examined by a competent veterinarian and finds that she has a very bad case of lump jaw of one year's standing or more, and advises killing her, which A does, and buries her, hide and whole.

1. Can A get back the note he gave to B for cow?
2. Can A get anything for feeding the cow for one month?
3. Can A get anything for the expense of veterinary and for killing and burying the cow?
4. Are the executors responsible to make anything good to A or not?

A. R. O.

Ans.—1. No.  
2, 3 and 4. It is very doubtful whether you are in a position to effectively set up a counter claim with which to meet the action which may be brought against you by B's executors upon the note—assuming it to be still in their hands; or to bring an action against them, as representing B's estate, for damages for the misrepresentation complained of, if B or they have parted with the note before its maturity. We think, however, that you would do well to place the matter in the hands of a solicitor without further delay. If you are entitled, legally, to damages the items you mention ought to be taken into account in estimating the amount thereof. It is possible the veterinarian recommended an unnecessarily drastic measure in ordering the slaughter of the cow, without first attempting the iodide-of-potassium treatment so often advised through this paper.

**J. S. KEMP, The Inventor of the Manure Spreader and the President of the W. I. Kemp Co., Ltd., Stratford, Ont.**



**MANUFACTURERS OF Kemp Manure Spreaders AND Imperial Horse-Lift Drills**

In calling the attention of the farmers of Canada to my latest improved Spreader for 1909, I would state that I built in the Township of Magog, Province of Quebec, in the year 1875, for use on a farm that I owned there, the first practical Spreader ever built, and that I have been engaged in farming and the manufacturing of the Spreader ever since.

In 1906 I sold out my patents in the United States for \$50,500 this gave me a chance to devote my time to the Spreader business in Canada, where it had been started in Stratford, Ont. I moved there in the fall of 1908, and with the experience of 34 years in the business, and the experience of my sons, we are manufacturing by far the best Manure Spreading Machine ever built. This year we are equipping the Spreader with what we call the reversible self-sharpening, grad-d flat-toothed beater, which handles every grade of material successfully, and with much less power.

To those wishing to know my experience in the use of a Manure Spreader, I will be very glad to give same upon application. Most respectfully yours, J. S. KFMP, 552 Ontario St., Stratford, Ont.

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Supersedes All Caustery or Firing. Invaluable as a CURE for

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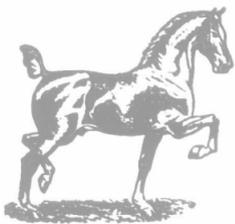


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### OUR ANNUAL AUCTION SALE OF Registered Clydesdales MONDAY, MARCH 22, 1909.

Imported and Canadian bred Mares and Stallions. All ages, will be offered. Anyone having entries for this sale are requested to send in their entries at once and get full particulars by return mail from us how the sale will be handled. Entry books close March 17th for this sale.

**Auction Sales of Milk Cows** At the request of a number of drovers, dairy-men, farmers and others, we have started a weekly Auction Sale of Milk Cows, which will be held every Tuesday at one o'clock in the Horse Sale Arena. Consign your cows to us for quick cash sales.

HERBERT SMITH, Manager.



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At their St. Thomas stables, the John Chambers & Sons Co., of England have for sale stallions and fillies from their noted Shire stud, high-class representatives of the breed. Correspondence solicited. Address

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We have for sale a few choice Clydesdale mares, imported and Canadian-bred; also some Canadian-bred Clydesdale stallions. Hackney stallions and mares for sale always. HODGKINSON & TISDALE, BEAVERTON, ONTARIO. G. T. R. and C. N. R. Long-distance phone.



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My new importation of Clydesdales are now in my stables: 14 stallions, 2 fillies. Visitors will find them as choice a lot as ever seen in Canada. Big, full of style and quality, and bred right royally.

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EXPECT TO LAND MY NEW IMPORTATION OF CLYDESDALES AND HACKNEYS about March 10th. My motto is: Quality, not quantity.

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My new importation for 1908 has now arrived—stallions and fillies—personally selected. Richest in breeding; highest in quality; with abundance of size and character. Sold on terms to suit. GEO. G. STEWART, HOWICK, QUE.

Subscribe for The Farmer's Advocate

### QUESTIONS AND ANSWERS.

#### Miscellaneous.

#### ROPY MILK.

I have two cows that give thick or chunky milk. I am not sure that one is in calf. She has been giving it out of one teat for a week or two. The other is not in calf and she started a few days ago. I feed silage, hay, shorts and oil cake.

Ans.—We would advise giving the cows 1½ lbs. Epsom salts. After purgation ceases, give a dessert spoonful of saltpetre in feed, twice daily, for three or four days.

#### WORMS.

Can you tell me, through your paper, how to get rid of worms in horses. My horses are young, one four, and the other seven years old. They look gaunt and rough. They pass worms frequently from six to eight inches long, and small ones about an inch or inch and a half long.

C. W. M.

Ans.—Take 1½ drams each of sulphate of iron, sulphate of copper, tartar emetic, and calomel. Mix and make into 12 powders. Give a powder every night and morning in damp food or as a drench in water. After the last has been taken, feed nothing but bran for twelve hours. Then give a purgative ball of 8 drams aloes and 2 drams ginger, and feed only bran till purgation commences.

#### SHEEP QUARANTINE QUERIES.

1. Is there good shelter and accommodation for sheep at quarantine station at Port Huron or Detroit?
2. Is it required that a man go with the sheep to feed and look after them while in quarantine?
3. How much per head would the quarantine expenses be?
4. What is the duty per head?

R. M.

Ans.—1. A shipper who has been through the mill favors us with the following information. The winter accommodation is not very good at Port Huron, Mich., as there is only one shed, which will house about 100 head, comfortably. There are several open yards, with water and feed racks, but no shelter from storms.

2. It is required that a man go with the sheep to feed and look after them.

3. The expense depends on what amount of feed you wish to use. Hay can be procured from the feed stores or farmers outside the station; also oats, corn, oil cake, or any other grain, at the market prices. In lots of, say one hundred head, the cost for hay, grain, man's expenses, etc., would be about \$3.00 each, for the quarantine period.

4. The duty per head on lambs under one year is 75c., and over one year \$1.50. Provided they are already sold and consigned to an American citizen, registered sheep or lambs will be allowed to enter the United States free of duty, by executing the necessary customs papers. I might also state that the United States Customs officials at Port Huron are very accommodating, and willing to help stock importers in any reasonable manner. Dr. Cummings, the United States Veterinarian at that point, is very painstaking in helping sheep importers to secure barn or shed accommodation on some of the near-by farms, when there is not room in the station.

#### TRADE TOPIC.

#### SETTLERS' TRAINS TO THE NORTH-WEST.

The Canadian Pacific Railway will run special trains for settlers going West with live stock and effects, leaving Toronto at 10.15 p. m., every Tuesday in March and April. Colonist cars will be attached, and trains run by Canadian Pacific direct time-saving route, no changes, delays or customs examinations. Settlers travelling alone and with their families, should use regular passenger trains, leaving Toronto at 10.15 p. m., daily. By doing so, and paying a small charge for berths, they will have the added comfort of the journey in a tourist sleeper. "Settlers' Guide," free pamphlet, giving full particulars and rates, may be obtained of nearest C. P. R. agent or direct from R. L. Thompson, District Passenger Agent, Toronto.

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is nature's own product—not man made. Quarried from solid rock—split into convenient form for laying, and then in its natural state ready for the roof.

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MONTPLAISANT 43361, registered black stallion—foaled 23rd May, 1905. Bred by L. E. Brown-Delavan, Illinois. Mon-plaisant is a horse of great substance, is 16 hands 1; will make over 1,800 pounds as a five-year old. He is perfectly sound and active, nicely gaited. Will make a great producer of heavy draft horses of great merit, and is a sure foal getter. His sire, Black Diamond, weighed 1,900 pounds. Having no demand in this part of the country for such a heavy horse, I shall accept six hundred dollars, half his value. For further information write:

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I have on hand a number of single ponies and matched pairs; all ages; thoroughly broken to harness and reliable in every way.

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FOR SALE—Pair matched imported Clydesdale fillies, rising four, in foal, registered. A Canadian Clydesdale mare, rising five, in foal to Baron Livingstone. Also an imported Clydesdale stallion rising five. W. Turner, Streetsville, Ont.

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For the cure of Spavins, Ringbone, Curbs, Splints, Windgalls, Capped Hock, Strains or Bruises, Thick Neck from Distemper, Ringworm on Cattle and to remove all unnatural enlargements.

This preparation (unlike others) acts by absorbing rather than blistering. This is the only preparation in the world guaranteed to kill a Ringbone or any Spavin or money refunded, and will not kill the hair.

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Color chestnut. Very superior action. Age 7 years. Sure stock-getter. Any desired information cheerfully furnished. Apply to:

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**MR. A. I. HICKMAN**

Court Lodge, Egerton, Kent, England, experts pedigree live stock of every description to all parts of the world. During the spring months the export of light and heavy horses will be a specialty. Breeders should write and learn how to get in right with Mr. A. I. Hickman will be at the Bell Hotel, Gloucester, Eng., during the week of the Royal Show, and will be pleased to meet all foreign and colonial visitors there.

## Ormsby Grange Stock Farm, ORMSTOWN, P. Q.

**DUNCAN McEACHRAN, F.R.C.V.S., D.V.S.,**  
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Importer and breeder of high-class pure-bred **CLYDESDALES.** Farmers or ranchmen starting breeding Clydes, pure or grade, specially invited to correspond.

## Shires, Shorthorns and Lincolns

We are now offering eight specially good young bulls, richly bred, and will be priced right; also a dozen heifers. Some choice young Shire fillies. And Lincolns of both sexes.

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**FOR SALE: Three Registered Clydesdale Stallions,** rising four years old, also one registered brood mare, in foal to imported sire, four years old. One of these stallions is imported, others Canadian-bred. All three good heavy ones, with lots of quality. Apply to: **R. T. Brownlee, Hemmingford, Que.**

**Dr. Bell's Veterinary Medical Wonders** cure inflammation of lungs, bowels and kidneys. The 20th-century wonder. Agents wanted in every county. Write for terms.  
**DR. BELL, V. S. Kingston, Ont.**

## QUESTIONS AND ANSWERS. Miscellaneous.

### UNTHRIFTY PIGS.

I have a litter of pigs four months old which are in an unthrifty condition, though not poor. They were covered with a heavy scab from the nose to the tail. About the first of February one died. I then washed them with carbolic acid, soap, and warm water, followed by a coat of grease, which has removed most of the scabs. Since then three more have died. They have been fed oat chop, soaked in warm water, with Herbageum, according to directions. Their sleeping quarters have been kept dry and comfortable. Will you kindly give me the cause and a cure for the trouble?

A. S.

Ans.—It would appear probable that the condition is due to indigestion. It may be that the food is given in too sloppy a condition. We would advise a change of feed, and would try barley chop, with a mixture of shorts, and would feed this dry, giving their drink in a separate trough. If milk is not available, give kitchen swill. A mixture of lard, or raw linseed oil and sulphur, is as effective as anything to remove scab and cleanse the skin.

### SUCCESSION DUTIES—CITIZENSHIP—PROBATE.

1. What is the amount of an estate a man may leave to his family in Ontario without having it subject to succession duties?
2. What is the percentage that goes to the Government?
3. In the administering of an estate, would commercial paper, held on property in a foreign country, have to be given in (where there was a will), same as if it was situated in Canada?
4. In the case of a citizen of another country leaving an estate in Canada, where he had lived for many years, would the administrator of such an estate have the option of administering same in either country, provided nothing is said about same in will?
5. Does the citizenship of a United States subject become cancelled through long residence in another country, although holding property there, and going back occasionally?
6. Is a citizen of the United States, owning and operating a farm in Ontario, entitled to vote on any municipal matter?
7. In proving a will, about what is required?

Ans.—1. \$50,000.  
2. It varies, according to circumstances—ranging from one to ten per cent.  
3. Yes.  
4. No. He would probably have to take out letters of administration in both countries.  
5. No.  
6. No.  
7. The will must be produced and filed with the Registrar of the Surrogate Court of the County in which the testator resided at the time of his death, accompanied by a Petition to the Court, signed by the Executor, and praying for a grant of letters probate; and affidavits identifying the will, proving the due execution of it, the death of the testator, his last place of residence, date of death, plight of will, value and particulars of estate and property, real and personal, and including oath of executor to properly administer the estate, must also be filed. These affidavits must all be carefully prepared in proper prescribed forms, and must be sworn before a Commissioner or a Notary Public. The Executor, one of the subscribing witnesses to the will, and the Commissioner or Notary must all write their respective signatures on the back or margin of the will. With the filing of the papers, a deposit is usually required to cover the Surrogate fees. Upon the grant being made, the Registrar will notify the Executor, or his solicitor, according as the petition was presented, personally, or by solicitor, and upon his calling at the office of the Court for same, the Registrar will deliver the letters probate, which include a certified copy of the will. This is, roughly speaking, the procedure for obtaining probate in ordinary cases. Where there are extraordinary circumstances, it may be necessary to prove the will "in solemn form," and in such case the proceedings are much more elaborate.



BIBBY'S CREAM EQUIVALENT CALF MEAL

## THE COST OF CALVES

The average dairyman is unable to raise young stock profitably because of the expense of feeding the amount of new milk necessary to add so much milk that the cost of feeding is excessive—and there is the added expense of risking scoured and pot-bellied calves. Yet here is a food, which when simply added to water, half-a-pound to six quarts, makes a gruel which contains all the elements of nutriment found in a like quantity of fresh milk, and which can be fed with perfect safety to the youngest stock. In fact, there is no other food, save fresh milk itself, which contains so much nutriment as

## BIBBY'S CREAM EQUIVALENT

Sold by most dealers, or direct from **WM. RENNIE CO.,** Toronto, Montreal, Winnipeg, Vancouver. 2

**Salary—\$75 to \$150 a month.**

**Wanted—Brakemen and Firemen**

We teach and qualify you by mail. Course simple, practical and thorough. After eight or ten weeks' study we guarantee to assist in getting you a position on any railway in Canada. The first step is writing for our booklet.

**THE DOMINION RAILWAY SCHOOL,**  
Dept. F. Winnipeg, Man.

## MY NEW IMPORTATION OF 23 Clydesdale Stallions

Which arrived in December, 1908, are all for sale. This lot include gets of the most famous sires. Four are by the renowned Everlasting, two are by Hi-watha. Please come and see them, or write to me. I am only two miles from the end of street car line. I also have two home-bred Hackney stallions for sale at a low price.

**O. SORBY, GUELPH, ONT.**



## NEW CLYDESDALE IMPORTATION.

My new importation of 24 Clydesdale stallions is now in my stables. I invite inspection and comparison. I think I have the best lot for size, style, character, quality and action ever imported. 27 Clyde stallions and 8 Hackney stallions to select from. Prices right, and terms to suit.

**T. H. HASSARD, MARKHAM, ONT.**  
POST OFFICE, PHONE AND STATION.

## CLYDESDALES AND FRENCH COACHERS

We have still on hand a few choice Clydesdale stallions—all young—that for size, style and quality will stand inspection. We have also a few Clyde fillies—imported and Canadian-bred, and two French Coach stallions. Correspondence and inspection invited. Our prices are easy and terms to suit. Phone connection.

**R. NESS & SON, HOWICK, QUEBEC.**

## Clydesdale Stallions and Mares!

A fresh lot has just arrived, including many prizewinners. Some extra big ones. Prices right. Inspection invited.

**DALGETY BROS., LONDON, ONTARIO.**  
Stables Fraser House. Address correspondence to Dalgety Bros., Glencoe, Ont.

**CLYDESDALES AND SHORTHORNS.**—Both imported and Canadian-bred, at Columbus, Ont., the Home of the Winners. Our last importation landed in August. They include the pick of Scotland, from such renowned sires as Baron's Pride, Everlasting, Baron o' Bucklyvie, Hiawatha, Marsells, Sir Everest, and Prince Thomas. We have on hand over 30 head to choose from, from the above noted sires, from 1 to 6 years old, and including stallions and mares. Correspondence solicited. Call and see them at our barns, Columbus, Ont., before purchasing elsewhere. Our prices are right. Long-distance phone in houses. Phone office, Myrtle station, C.P.R.; Brooklyn station, G.T.R.; **Smith & Richardson & Sons, Columbus, Ont.** Oshawa station, G.T.R.

**IMP. CLYDESDALE STALLIONS AND FILLIES.**—Our new importation of stallions and fillies are the best we could select in Scotland, particularly well bred, with the size, smoothness and quality that Canadians admire. Show-ring stuff. Come and see them. Will sell on terms to suit. **JOHN A. BOAG & SON, QUEENSVILLE P. O. Ont.; Newmarket Sta., G. T. R.** Telegraph and telephone one-half mile from farm. Metropolitan Street Ry. from Toronto crosses the farm.

**IMPORTED CLYDESDALES** My new importation of Clydesdale stallions and fillies, land- ed a short time ago, are an exceptionally choice lot, full of flashy quality, style and character, and right royally bred. I will sell them at very close prices, and on terms to suit. **C. W. BARBER, Gatineau Point, Quebec.** "Close to Ottawa."

## Make Your Own Stock Food.

One pound of Barnes English Compound makes ten pounds of stock food, by mixing it with three pounds of linseed meal and six pounds of corn meal. As a conditioner and flesh-producer has no equal. Postpaid on receipt of 50c., money order or stamps. Address: S. G. Amsden, Windsor, Ont.



### The Sunny Side HEREFORDS

For sale: 6 choice bull calves, 2 good yearling bulls. I can yet spare some cows and heifers. Special value in bulls and heifers.

Write for prices. Long-distance phone.

M. H. O'NEIL, SOUTHGATE, ONT.

### THE "MAPLES" HEREFORDS

Canada's Greatest Show Herd.



F-v Sale: 25 bulls from 6 to 18 months of age, bred from imported and show stock; also about the same number of heifers, none better. Prices right.

W. H. HUNTER, Orangeville P.O. and Sta.

### HOMESTEAD ABERDEEN-ANGUS



Good individuals and good breeding, at prices that anyone wanting a good young bull or heifer can afford to pay. Come and see them.

WM. ISCHE, Sebringville, Ont.

Bell telephone.

Present offering: One bull 2 year old, and three choice yearling bulls, and anything in the female line. A choice lot and sold right. GEO. DAVIS & SONS, ALTON, ONT. Station, C. P. R.

**Aberdeen-Angus Cattle.** If you require either of these breeds, write:

**SUFFOLK DOWN SHEEP.** JAMES BOWMAN, Elm Park, Guelph, Ont.

### ABERDEEN-ANGUS CATTLE!

FOR SALE: Some of the best strains. Several fine heifers; also cows and a couple of bulls. Apply: MANAGER,

GRAPE GRANGE FARM, CLARKSBURG, ONT.

**Aberdeen-Angus** For sale: The right sort, some of them by Klondyke, imp. Drumbo station.

WALTER HALL, Washington, Ontario.

### Scotch Shorthorns!

I am offering a few choice young bulls, also heifers in calf to imp. bull. Will be pleased to furnish pedigrees and prices upon application.

JOHN MILLER, Brougham, Ontario. Claremont Stn., C.P.R.

### Greengill Shorthorns!

Our present offering consists of 10 young bulls, from 8 to 20 months. All nice reds and roans. A number of them from imp. sire and dam. Prices right.

R. Mitchell & Sons, Nelson P. O., Ont. Burlington Jct. Sta.

Tommy—"Ma, I met the minister on my way to Sunday school, and he asked me if I ever went fishing on Sunday."

Mater—"And what did you say, darling?"

Tommy—"I said, 'Get thee behind me, Satan,' and ran right away from him."

## Black Watch

Black Plug  
The Chewing Tobacco  
of Quality.



2271

### QUESTIONS AND ANSWERS. Miscellaneous.

#### TELEPHONE CONNECTIONS.

Are the Telephone Co. obliged to connect with a farmers' independent line? Ontario. A. H. R.

Ans.—We think not.

#### A HORSE-BREEDING MATTER.

In 1907 A bred two mares to my stallion. In March, 1908, A had a sale, and advertised on sale bills both mares in foal to my horse, and sold at sale to be in foal. A paid me for both mares; mares leaving the country. A claims now neither mare had any foals and wants his money back. What steps can I take to protect myself? J. C. O. Ontario.

Ans.—It does not appear from your statement of facts that you are under any liability to A; but it is possible that your contract with him may be such as to entitle him to a return of the money he paid you, or to some portion of it. If he should really insist upon it, and you find yourself in danger of being sued, it would be well for you to consult a solicitor personally.

#### GRANTS TO SPRING FAIRS.

We are about to organize a spring show in our village. Does the Government give a grant to the same; if so, on what condition? J. J. H.

Ans.—I beg leave to quote the following clauses of the Agricultural Societies' Act: Section 21. (b) Societies that hold a spring stallion show, a spring bull show, or a combined spring stallion and bull show, shall receive a grant equal to one-half the sum expended in the holding of such show, but such sum shall not exceed \$50.

(c) Societies that hold a Spring Seed Fair shall receive a grant equal to one-half the sum expended in the holding of such fair, such sum not to exceed twenty-five dollars.

The word "Societies," as given above, means the regularly organized agricultural societies, any of which are allowed to hold spring fairs.

J. LOCKIE WILSON.

#### DRAINAGE—RAILWAY FENCING

A, B and C own three farms in a row, the sideroad passing between A's and B's farms. The railroad passes through A's farm, fourteen rods from sideroad. There is an open drain through C's farm, twenty-five rods from line fence, between B and C. C has tile drain from open ditch to line fence. If A and B put in tile drain emptying into C's drain:

1. Will A and B have to bear part of the expense of cleaning open drain, which has to be done every year?
2. Will township have to bear part of expense for draining sideroad?
3. What steps would A have to take to get drain across railroad, it being the natural watercourse?
4. Would Railroad Company have to bear any expense, as railroad would be drained?
5. The Railroad Company built a barb-wire fence through my farm some years ago. Can I order it removed, as it is dangerous to my stock?
6. What steps would I have to take?

Ontario. E. R.

Ans.—1, 2, 3 and 4. All the parties who would derive benefit ought to contribute to the expense. This applies to the railway and municipal corporations, as well as to the individuals; but the railway company has the option of constructing the portion of drain, or drainage work, required to be constructed upon, along, under or across its railway or lands. All parties should get together and agree, if possible, upon what is to be done; but if an agreement cannot be reached, then the Municipal Engineer should be called in, under "The Ditches and Watercourses Act."

5 and 6. It depends largely upon the by-laws of the local municipality, and you should see the Municipal Clerk as to same. We do not regard such a fence as at all suitable; but without knowing what the municipal by-laws, if any, may provide, nor whether the Railway Company is a Dominion or a Provincial corporation, we cannot advise you as to what steps you should take beyond seeing the clerk, excepting that you would be quite right in requesting the company to substitute some proper fencing for the objectionable barbed-wire.

# CHURCH'S COLD WATER

## Alabastine

It Won't Rub Off

### Artistic and Healthful

No one who has ever decorated a room with Alabastine can rest content until the whole home is so decorated. Alabastine tints have more tone than wall paper, paint, or whitening-and-glue preparations. The minute rock crystals, of which this hygienic cement is made, reflect the rays of light softly and cheerfully—and actually make the room several degrees brighter. Alabastine does not rub off, peel, crack or decay. It is the most durable, healthful and economical wall covering. Your hardware dealer sells 5 lb. package 50c. Our book "Homes, Healthful and Beautiful," mailed free on request, tells how to do artistic work.

The Alabastine Co., Limited  
31 Willow St., Paris, Ont.

## FREE

Ink Pencil or Fountain Pen! Just what you want for doing your Homework!

You can have your choice FREE of either of these valuable and useful articles, (Made from very best materials, Fountain Pen is Gold-Banded, for selling only \$2.50 worth of our Vegetable and Flower Seeds. Seeds are a sorted varieties in 5c. (small) and 10c. (large) packages, and are easy sellers. Send-to-day—your name and address, plainly written. A postcard will do. The Reliable Premium Co. Dept. X, Waterloo Ont.

## Caldwell's Meal

No stockman or dairyman should be without it. With the meal forming part of the daily food, your stock will rapidly take on flesh and grow glossy coats; your young animals will come earlier to maturity; your sheep will be kept free from coughs and colds—worms will be eradicated; your milch cows will give more and better milk, and your animals will get the full benefit of all the nutriment contained in the entire feed. Costs nothing extra to use, as it is substituted for an equal quantity of ordinary food. A ton will last 20 cows a month. Price, freight prepaid, \$34.00. Manufactured by A. C. CALDWELL, EAST TORONTO.

## WE ARE PRICING VERY REASONABLY 10 Choicely-bred Young Shorthorn Bulls

Also one extra good imported bull, 22 months old. We have always something good to offer in females. Imported or home-bred. Write for what you want, or come and see them. Bell phone at each farm. W. G. PETTIT & SONS, Farms close to Burlington Jct. Sta., G. T. R. FREEMAN, ONTARIO.

## SPRING VALLEY SHORTHORNS.

Our herd is pure Scotch, imp. and home-bred. 50 head to choose from. Our present crop of young bulls are the best we ever had. All sired by the great stock bull, imp. Bapton Chamdor. High-class show things among them, including this fall Toronto winners. Nearly every one a herd header.



KYLE BROS., AYR, ONT., P. O. and STATION.

## SOME SHOW PROPOSITIONS IN BOTH MALE AND FEMALE SHORTHORNS

as well as a number of the useful sort of both sexes. Prices right. Large lot to select from. Up-to-date in breeding, etc. Catalogue.

JOHN CLANCY, Manager. H. Cargill & Son, Cargill, Ont.

## AN OPPORTUNITY TO SECURE YOUNG Shorthorn Bulls

A few heifers will be sold cheap. One Clydesdale Stallion rising three years.

MAPLE SHADE FARM. STATIONS: } MYRTLE, C. P. R.  
Long distance telephone. } BROOKLIN, G. T. R.

JOHN DRYDEN & SON, BR. OKLIN, ONT.

## I Can Price for a Short Period Two High-class Young Bulls

One a straight Cruickshank, son of Jilt Victor (imp.); the other out of the show cow, Tiny Maude, and sired by The Dreamer, first-prize two-year-old at Kansas City.

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

Our herd is strong in Nonpareil, Marchioness, Jilt, Mina, Glosterina, Rosebud and Lady Brant blood. In order to save holding a public sale, we will sell very cheap 15 on- and two-year-old heifers and several extra choice bulls. Berkshire sows sale in pig.

S. J. PIERSON & SON, Meadowvale P.O. and Sta.

**Rowan Hill Shorthorns** The 1908 Toronto grand champion, Royal Chief 65495, heads my herd. For sale are: 3 spring bulls and a few heifers, sired by him, and out of show cows. These are choice young things that are sure to please. R. F. DUNCAN, Carlisle P. O., Ont. Caledonia Station, G. T. R., or station 13 Hamilton and Brantford Electric Road.



QUESTIONS AND ANSWERS.  
Miscellaneous.

COAL ASHES AS FERTILIZER—  
FEEDING VALUE OF  
THRESHED MILLET.

1. What are the percentages of P2O5 & K, in coal ashes?
2. What per cent. is immediately available?
3. How long before the unavailable parts become available?
4. What is their mechanical action on light soils?
5. What is the feeding value of millet straw from which the seed has been threshed?

Ans.—1, 2 and 3.—Coal ashes have practically no value as a fertilizer.  
4. The mechanical action on light soils is very slight. If the soil were coarse sand, they would be of some value in holding moisture.

5. To get highest feeding value of millet, it should be cut when in blossom. If allowed to ripen, the straw becomes dry and woody, and is very unpalatable. Sometimes it is said to be injurious to stock, unless fed in very limited quantities, along with other fodder. We have no figures to show the feeding value of millet straw, but the removal of the seed should deteriorate the crop as much as the removal of the grain from an oat crop. In our opinion it would be worth less than low-grade straw.

CEMENT FENCE POSTS.

What is the best proportion to mix cement and gravel for fence posts, with 1/2-inch iron rod in center and 2x2 inch wood in post for staples? What size of post is best?

Ans.—Some authorities recommend one of cement to five of sand and gravel. A standard proportion is: 1 cement, 2 1/2 sand, and 5 parts finely-broken stone or gravel. It is not the best plan to rely on an iron rod in the center of the post for reinforcing. Better use twisted wire near each corner. By preparing a thin mixture, the wires can be placed to suit, and the cement settles around them securely with very little tamping. Your suggestion of using a strip of wood for staples would be good, were it not for the fact that the wood is liable to become water-soaked, and then frost causes this to expand, thus cracking and crumbling the post. Besides this, the wood, in time, would decay. Tapering posts, 6 1/2 feet long, 4x4 inches at the base, and 3x3 inches at the top, are advised for fences, and for corners or gate posts, 8 feet long, 6x6 inches at the base, and 5x5 at the top. Several devices are recommended for attaching the wire. Perhaps the simplest is imbedding pieces of wire, leaving a small loop exposed to which the wire strands can be bound by soft wire.

ACREAGE — INVESTING TRUST FUNDS.

1. I bought a farm of 114 acres. When the deed was received, no number of acres being mentioned, just part of lots and number. Said property at one time contained several hundred acres, but was divided up into several farms by a former owner. Where can I get a survey of place so that I may be sure that I have the given number of acres, and cost of getting same?
2. Can school trustees take school funds from bank and loan out to a neighbor at higher rate of interest, giving district credit for higher rate of interest, as several ratepayers are objecting. If not, cite clause in School Act?

Ans.—1. This is a matter for careful investigation by a solicitor, and you ought to instruct one without delay. He will advise you whether a survey is necessary. It is possible that the expense of one may be avoided.

2. We think not, unless possibly in case the repayment of the amount of such loan and the interest thereon is secured by a first mortgage on real estate held and used for farming purposes, and the amount of such loan does not exceed two-thirds of the value of such real estate according to the last revised assessment roll. We do not find any clause in the Public Schools Act expressly prohibiting it.

A \$5,000 DAN PATCH STALLION FREE

This New Picture of DAN PATCH 1:55 in Six Brilliant Colors  
MAILED FREE



DAN PATCH 1:55.

This new picture of Dan Patch 1:55, is the Finest I have ever gotten out for framing. It is printed in six brilliant colors and is free of advertising. It gives his age and a list of all the fast miles paced by Dan. Being made from a "Speed Photograph" it shows Dan as a lifelike as if you stood on the track and saw him in one of his marvelous and thrilling speed exhibitions. You ought to have a fine picture of the King of all Harness Horse Creation and the Fastest Harness Horse the world has ever seen. I will mail you one of these Large, Beautiful, Colored Pictures of Dan Patch 1:55 free With Postage Prepaid and full particulars concerning my plan of Giving Away a \$5,000.00 Dan Patch stallion if you will simply write me.

A \$5,000 DAN PATCH STALLION FREE

An Absolutely Free Hair Counting Contest Without Money or Purchase Consideration And Open To Any Farmer, Stockman or Poultry Breeder. Can you count the number of hairs drawn in a picture of "Forest Patch," sired by Dan Patch, dam by Monaco by Belmont. Write for one of the Above Dan Patch Pictures. I will also mail you a photo engraving of "Forest Patch," the fine Registered Stallion to be given away and ALSO Drawing showing hairs to be counted and also stating easy conditions. Every stock owner will want to count the hairs on this Splendid \$5,000.00 Dan Patch Stallion because it means a small fortune free for someone. We paid \$60,000 for Dan Patch and have been offered \$150,000. We would have lost money if we had sold Dan for One Million Dollars. "Forest Patch" You may secure this \$5,000 Dan Patch Stallion Absolutely Free. "Forest Patch" might make you a fortune of \$25,000 to \$50,000 as a great stock horse for any community because he will make a 1900 lb. stallion with great style and beautiful conformation.

E. B. SAVAGE, Toronto, Canada, International Stock Food Co.

Mail this Free Coupon To-day to E. B. SAVAGE, Toronto, Can.  
You MUST FILL IN THE THREE BLANK LINES IN THIS FREE COUPON

OUT OFF HERE

E. B. Savage, International Stock Food Co., Toronto. Will you please mail me Postage Paid one of the Beautiful Six Color Pictures of Dan Patch 1:55, the World's Champion Harness Horse, described above, and also full particulars of your plan of Giving Away a \$5,000.00 Dan Patch Stallion. I have filled out the coupon, giving the number of live stock I own, and my name and address.

I own..... Cattle..... Hogs..... Horses..... Sheep

Name.....

Post Office..... Province.....

HIGH PRICES PAID FOR HIDES, SHEEPSKINS, RAW FURS AND

CALFSKINS

E. T. CARTER & CO., Wepay FREIGHT and EXPRESS CHARGES. PROMPT RETURNS.  
84 Front St., East, Toronto, Ont.

SHORTHORNS  
Nine bulls from 8 to 20 months old, reds and roans; 10 yearling heifers and a few cows. Will sell very cheap to make room in stables.

CLYDESDALES  
One pair of bay mares and one dark brown, heavy draft and two spring colts.

JAMES McARTHUR, Gobles, Ontario.

Pleasant Valley Herd  
Present offering: 7 high-class young bulls by Imp. Ben Lomond = 45160 = (80468) and Bud's Emblem = 63860 =, and good imp. and Canadian-bred dams. Write for particulars and prices, or visit personally.

GEO. AMOS & SON, Moffat Station and P.O. Moffat is 11 miles east of Guelph on C. P. R.

Shorthorns!  
BELMAR PARC  
John Douglas, Peter White, Manager. Pembroke, Ont.

Calves for sale by our grand quartette of breeding and show bulls:  
Nonpareil Archer, Imp. Proud Gift, Imp. Marigold Sailor. Nonpareil Eclipse.  
Females, imported and from imported stock, in call to these bulls.  
An unsurpassed lot of yearling heifers.

Shorthorn Cattle  
AND LINCOLN SHEEP.  
Females of all ages for sale of the thick-fleshed, low-down kind that have been raised naturally, neither stuffed nor starved. Twenty-five Lincoln ewes, bred to our best imported stud ram, also a few choice yearling rams. Prices very reasonable for quick sale.

J. T. GIBSON, DENFIELD, ONT.

A. Edward Meyer,  
P. O. Box 378, Guelph, Ontario,  
Breeds SCOTCH SHORTHORNS Exclusively  
Twelve of the most noted Scotch tribes have representatives in my herd. Herd bulls: Scottish Hero (imp.) = 55042 = (90065) 295765 A. H. B.; Gloster King = 65708 = 283804 A. H. B. Young stock for sale. Long-distance phone in house.

WILL MAKE PRICES ON THE FOLLOWING LIST OF Shorthorns, Clydesdales, Shropshires and Cotswolds  
That No Man Keeping Live Stock Can Afford To Overlook:  
Three, from imported sire and dam, amongst the best. The filly is good and has the quality wanted in a show mare. A small number of imported cows and heifers, and some splendid young bulls and heifers from imported sires and dams  
Good young Shropshire and Cotswold ewes in lamb to high-class imported sires.

ROBERT MILLER, Stouffville, Ont.

Registered Shorthorn Yearling Bull  
A Strathallan. Color red. Fine form and well fleshed, with excellent quality and very promising. Price moderate to early buyer. Dam a real good milker.

J. & D. J. CAMPBELL, WOODVILLE, ONT. Fairview Farm.

10 Imported Scotch Shorthorn Bulls 10  
Personally selected from the leading Scotch herds. Now in quarantine. Will be for sale at my farm first week in January. They are of such noted families as Broadhooks, Butterfly, Claret, Clara, Roan Lady and Jilt. I also have for sale four bull calves from imp. sire and dam, and a number of good young cows and heifers. Catalogue being prepared. Write for one. Prices, as well as quality and breeding, will please you. Farm 1/4 mile from Burlington Junction station, G. T. R.

FRED. BARNETT, MANAGER. J. F. MITCHELL, BURLINGTON, ONT.

Scotch Shorthorns Canada's greatest living sire, Mildred's Royal, heads my herd. For sale are young bulls and heifers, show stuff and Toronto winners, out of Stamford, Lady Ythan, Claret, Emeline, Matchless and Belona dams. A visit will be appreciated. GEO. GIER, Grand Valley P. O., Ont. Waldemer Sta., C. P. R.

SHORTHORNS  
FOR SALE!  
I have a dozen young cows and heifers, got by the Brawith Bud bull, Golden Abel (imp.), and in calf to the Bruce Mayflower bull, Royal Bruce (imp.), that I will sell very reasonable. A number of them are out of imported dams, and registered in Dominion and American Herd-books.

R. J. DOYLE, OWEN SOUND, ONT.

Stock Bull Trout Creek Sailor - 59421 = 247242, A. H. B., for sale; also roan show bull, fit for service. A. M. SHAVER, ANGASTER, ONT. Station 13, Brantford and Hamilton Electric Line; three minutes' walk from barns. Inspection invited. Priced right.

1854 MAPLE LODGE 1909 STOCK FARM 1909

A few extra good young SHORTHORN bulls and heifers for sale  
LEICESTER ram lambs by the grand champion ram, "Sanford." Right good ones, and a few choice ewes.

A. W. SMITH, MAPLE LODGE P. O., ONT. Lucan Crossing Station, G. T. Rv.

SHORTHORNS I

Having sold our farm here, we will sell at a sacrifice, to save moving, our wonderful show and stock bull Golden Victor = 59704, or his as-tant, Mar Victor = 69332 =, also a winner, and bred by H. Cargill & Son. Also a few young things.  
N. B.—Our P. O. and station after April 1st will be Clifford, where visitors will be met, instead of Teeswater as at present.

A. ADAMSON & SON, TEESWATER, ONT.

Shorthorn Bulls!

Herd heading quality and breeding. Also good ones at farmers' prices. Females for sale. Write, or come and see. Farm adjoins town.

H. SMITH, EXETER, ONT.

Imported Bull!

To save inbreeding I will sell the Cruickshank (Duthie bred) imp. bull, Sittytio Victor = 50093 = (87397), a proven sire of merit, gentle and active. Also some young bulls by him, out of imp. dams. Address:

John Brydson, Milverton, Ont.

WILLOW BANK STOCK FARM

Shorthorns, Leicesters.  
Herd established 1855; flock 1848. The great Duthie-bred bull, imported Joy of Morning = 32070 =, at the head of herd. A choice lot of cattle of either sex to offer. It will pay you to see them. Also choice Leicesters. JAMES DOUGLAS, Caledonia, Ont.

SHORTHORNS!

Present offering: Choice young stock, either sex, by Golden Crescent = 72325 = and Nonpareil Victor 2nd = 34534 =. Prices reasonable.

John Racey, Lennoxville, Que.

Shorthorn Bulls Ready for service. One will make a show bull. Also young things from Matchless, Crimson Flower, Miss Ramsden, Rosemary, Diamond and Lady Fanny dams, the get of Chancellor's Model. Prices to suit times. Come and see. Israel G. Eimira, Ont.

Scotch Shorthorns Fifteen choice red bulls, 7 to 17 mths., by Imp. Protector; some out of imp. dams. Will be sold reasonable.

McFARLANE & FORD, M. C. and P. M. Rys. Box 41, Dutton, Ont. two miles east of station



**Lost Energy Restored by Psychine.**

Mr. Geo. Pratt, of Clarkson, Ont., says: "Four years ago my son Wilbert was so run down, thin and emaciated, that we thought he was going into a decline and feared he would never pull through the severe cold of the winter months. The boy had no appetite and seemed to have lost all energy and interest in life. He was altogether in terribly bad shape. His condition caused us the gravest anxiety. "Fortunately I procured PSYCHINE for him and this soon gave him a new lease of life. It is really remarkable how rapidly this splendid medicine brought about a change. After taking one or two bottles he was hardly recognizable as the same youth. PSYCHINE effected a speedy cure and he was soon able to work about on the farm again. To-day he is a robust young fellow, and if anything, stronger than his brothers. Nothing in the way of hard work seems to affect him. I cannot speak too highly of PSYCHINE. It certainly saved our boy and made a man of him."

Prevents the children taking cold, wards off that terrible malady La Grippe and completely fortifies them against disease. It should always be used for colds, a grippe, weakness, loss of appetite, etc. Send to Dr. T. A. SLOCUM, Limited, Spadina Ave., Toronto. Sold by all druggists and dealers, 50c and \$1.00.

**PSYCHINE**  
PRODUCED IN CANADA  
 THE GREATEST OF TONICS FOR HEALTH AND ENERGY

**Ring-Bone**

There is no case so old or bad that we will not guarantee

**Fleming's Spavin and Ringbone Paste** to remove the lameness and make the horse go sound. Money refunded if it ever fails. Easy to use and one to three 6-minute applications cure. Works just as well on Sidebone and Bone Spavin. Before ordering or buying any kind of a remedy for any kind of a blemish, write for a free copy of

**Fleming's Vest-Pocket Veterinary Adviser**

Ninety-six pages of veterinary information, with special attention to the treatment of blemishes. Durable, bound, indexed and illustrated. Make a right beginning by sending for this book.

FLEMING BROS., Chemists, 76 Church St., Toronto, Ontario

You cannot possibly have a better Cocoa than

**EPPS'S**

A delicious drink and a sustaining food. Fragrant, nutritious and economical. This excellent Cocoa maintains the system in robust health, and enables it to resist winter's extreme cold.

**COCOA**

Sold by Grocers and Storekeepers in 1/2-lb. and 1-lb Tins.

Vegetable Growers and Fruit Raisers! Can your own produce. Why give Canning Trusts the profits? Information free. Write CANAERS' SUPPLY CO., DETROIT, MICH.

**GOSSIP.**

The dates fixed for Mt. Forest Agricultural Society's Fall Fair are Tuesday and Wednesday, September 21st and 22nd.

**IMPORTANT SCOTTISH SALE.**

As advertised in this issue, on May 21st and 22nd, will be sold by auction the noted herd of Ayrshire cattle belonging to Mr. Andrew Mitchell, Barcheskie, Kirkcudbright, consisting of 300 head of the choicest Ayrshires ever exposed at public sale. Also the stock of Clydesdales, consisting of 30 head, mostly of Macgregor and Baron's Pride blood. See the advertisement.

**SHIRES SELL HIGH.**

The famous Dunsmore stud of Shire horses, which belonged to the late Sir Phillip Muntz, was dispersed on February 11th, at Rugby, England. The sale comprised the whole of the stallions, and the fillies under four years old, the brood mares being reserved until autumn. Ten aged stallions averaged \$985. The noted stallion, Dunsmore Jameson, fell to the bid of Lord Middleton, at 1,025 guineas, (5,381). Mr. Potter gave 675 guineas for Dunsmore Matchless, a dark brown son of Matchless Waiter. Three two-year-old fillies averaged 277 guineas (\$1,455) each. Fifty-two head sold for an average price of \$1,040.

Mr. Harry Smith, Exeter, Ont., writes: Among the young Shorthorn bulls advertised in this issue of "The Farmer's Advocate" is Village Bridegroom, that was an outstanding winner in the junior calf class at Toronto last fall, and he has made unusual improvement since. He is of the favorite old Cruickshank Village Blossom family, a unique feature of his breeding being that from the foundation of the Sittyton herd, this pedigree shows only crosses made by Mr. Cruickshank and myself, the sires used on this side of the water being Imp. Earl of Mar, Prince Albert, Abbottsford, and Gold Drop (who has sired as many first-prize winners in the last three years as any four imported bulls in Canada. This fact has been verified from official records.) Then the dam of this calf has produced a Toronto first-prize winning calf three years in succession, something unparalleled in recent years at least. The sort has produced young Abbottsburn, the greatest Shorthorn of modern times, on this continent at least, and many other good ones, and that they are breeding on is evidenced by the fact that at F. W. Harding's sale last year a white ten-months-old bull calf of exactly the same breeding as Village Bridegroom, except a different sire, sold for \$2,750. Desirable as this young bull is, there are three or four others that have a very good right to challenge his being the best young bull in the herd.

**TRADE TOPIC.**

**THE MANURE SPREADER** is fast becoming an indispensable farm implement. The supply of manure can be made to go twice as far when evenly and uniformly distributed by the spreader, and can be more thoroughly incorporated with the soil in the cultivation which follows, while the fertilizing elements are more readily absorbed by the crops. Farmers who have used the spreader have acknowledged that the implement has paid for itself in a single season by reason of the increased returns from the crops over the old system. The Kemp Manure Spreader has made for itself a reputation which stands the test of time and service, and it is claimed that there are to-day more Kemp Manure Spreaders in use than of all other makes combined. For strength of build, lightness of draft, ease of operation, and efficiency of work, the Kemp stands unexcelled. The W. L. Kemp Company, Stratford, Ont., are offering in their advertisement all that was the best in the old Kemp Spreaders, also the latest product of Mr. J. S. Kemp's brain, and there are 33 years of continuous thought about manure spreaders building illustrated in the construction and action of Kemp's Manure Spreader as now manufactured.

**RAW FURS**  
 WANTED IMMEDIATELY  
**200,000 MUSKRAT**  
 WE BUY ALL OTHER KINDS OF FURS. SHIPMENTS SOLICITED.  
**The Monteith, Strother Fur Co.** 11 and 13 Church St. TORONTO

**Stonehouse Ayrshires.**



36 head to select from. All imported or out of imported sire and dam. For sale: females of all ages. Am now booking orders for bull calves.  
**HECTOR GORDON,**  
 Hawick, Quebec

**A BETTER LOT OF AYSKSHIRE Cows and Heifers**



Were never to be seen before at Stockwood. Deep milkers, good teats; lots of size, just the kind for foundation stock. Young bulls from prizewinning dams; also heifers. Prices low. Terms to suit purchaser. All stock guaranteed before shipping.  
**D. M. WATT, St. Louis Sta., Que.**

**Sale of the Most Celebrated Herd of Ayrshires in the World.**

Mr. Walle, Auctioneer, Castle Douglas, has received instructions from Mr. Andrew Mitchell, Barcheskie, Kirkcudbright, Scotland, to sell on

**THURSDAY, MAY 20th,**

his world-renowned herd of Ayrshires, consisting of over 300 head of the choicest cattle ever exposed to public auction, and on

**FRIDAY, MAY 21st,**

his celebrated stud of Clydesdales, consisting of 30 head, mostly Macgregor and Baron's Pride blood. Included in the sale will be the dam and full sister of the champion show and breeding horse, Baron's Gem, and the dam of Criterion; all sure in foal. Cattle bought for export under three years old to pass tuberculin test. Arrangements made with Donaldson Bros. for cheap fares to purchasers at this sale.

**Important Dispersion Sale OF AYRSHIRES**

The property of MR. D. A. JAMES, Dorchester, Ont., will be held at the farm, 1 1/2 miles West of Dorchester Station, G. T. R., on

**TUESDAY, MARCH 16, 1909.**

This herd comprises 29 females and one bull, and has been bred from the best stock obtainable. The progeny has made excellent showing in Records of Performance. There will also be sold some Grade Live Stock, Horses and Farm Implements.

TERMS: \$10 and under, cash; over that amount, six months' credit on bankable paper. Six per cent. per annum off for cash.

SALE WILL COMMENCE AT 12 O'CLOCK NOON.

Messrs. Dibb and Lindsay, Auctioneers. D. A. JAMES, Prop. Dorchester, Ont.

**TROUT RUN AYRSHIRES** Imported and Canadian-bred. Our herd of 30 Ayrshires are producers. We will sell six 2-yr-old heifers in calf to imported bull, twelve yearling heifers (imp. sire and dam), 1 imp. yearling bull, and one home-bred yearling bull. A choice lot. **Wm. Thorn, Lyndoch, Ont.**

**Ayrshires**—Oldest-established herd in Ontario. Average B. F. test for the whole herd, 42; milk yield, 40 to 60 lbs. a day. For sale: Females of all ages, and several young bulls, all by imp. sire, and some out of imp. dams. **JAMES BENNING, Williamstown P.O., Ont.** Lancaster station.



**Stoneycroft Ayrshires**

Choice young bulls and heifers of the very best breeding, combining show and dairy quality. Large Improved Yorkshire Pigs from imported sires and dams, now ready to ship. **Stoneycroft Stock Farm, Ste. Anne de Bellevue, Que.**

**HOWGLEN AYRSHIRES!** For sale: 75 pure-bred registered Ayrshires, all ages; prizewinners; many imported. Apply to **ALLAN P. BLUE, Eustis, Quebec**

**UTILITY GLENORA OF KELSO = 15798 = AYRSHIRES** at head of herd. For sale: Females of all ages, and several young bulls, some out of 11,000 lb. cows. Come and see, or address: **R. C. CLARK, Hammond, Ont.** Railway station, Hammond (G. T. R. and C. P. R.)

**AYRSHIRES AND YORKSHIRES!**

We will sell or exchange for a young cow our (imp.) 3-year-old bull. On hand: Young bulls fit for service (imp. or home-bred). Choice August and September, 1908, calves from imp. sires, some imp. dams. One a grandson of Eva of Menie. Females any desired age. Bargains now, as we are crowded. We will fill all orders for 1909 importation. Young sows ready to breed. Phone Campbellford.



**ALEX. HUME & CO., MENIE, ONTARIO.** HOARD'S STATION, G. T. R.

**AYRSHIRES** Bull and heifer calves from producing dams. Right good ones. Hickory Hill Stock Farm. **N. DYMENT, Clappison, Ont.**

**WARDEND AYRSHIRES!** I have now for sale 2 yearling and 3 bull calves from good milkers. **F. W. TAYLOR, Wellman's Corners, Ont.** Hoard's Sta., G. T. R. Telephone in house.



**Springhill Ayrshires!**

A better lot of young cows and heifers we never had. They have only to be seen to be appreciated. "Deep milkers." "Good teats." Just the kind for foundation stock. Bull calves from best cows. Will leave for Scotland shortly to import. Order a choice yearling or bull calf or a female or two. They will be out of quarantine for spring service. Write for prices. Long-distance phone.

**ROBERT HUNTER & SONS, Maxville, Ont.**

**Married Man Wanted** to engage by the year for farm work and stock feeding; must be experienced along these lines. One having some experience in handling show Shorthorns and Clydesdales preferred. Comfortable house on the farm supplied. **GEO. D. FLETCHER, Wellington Co. Binkham P.O., Ont.**

**CHERRY BANK AYRSHIRES.** I am now offering young bulls and heifers true to type and high in quality. Some with imp. sire and dam; also will spare a few older females. **P. D. McArthur, North Georgetown P. O., Que.** Howick station, Que.

QUESTIONS AND ANSWERS.  
Veterinary.

STRINGHALT.

Last spring I commenced to work a 17-hand three-year-old. In August, he commenced to throw his left hind foot outwards and fetch it up with a jerk when walking. When trotting this is not noticed. W. H. S.

Ans.—This is a form of chorea called stringhalt. It is purely nervous, and the action is involuntary. Medical treatment is not successful. In most cases the disease is progressive, the symptoms gradually becoming worse. An operation which consists in severing a tendon that passes in an angular direction just below the hock on the outside, is often successful, but in some cases fails to relieve the symptoms. V.

LAME MARE.

In June last we noticed our four-year-old mare slightly lame in one fore leg. The lameness gradually grew worse for a few days, and she has continued lame ever since. The muscles of her breast have fallen in some. We used hot water and liniments and blistered several times for sweeney, but it did no good. P. T. H.

Ans.—It is very hard to diagnose without more particulars as to symptoms, and it would be wise to have her examined by a veterinarian and have the trouble located. I am of the opinion the lameness is in the foot, and would recommend blistering the coronet repeatedly. Remove the shoes, pare the heels and lower margin of the wall well down, dip the hair off for about two inches high all around the hoof. Make a blister of two drams each of biniodide of mercury and cantharides, mixed with two ounces of vaseline. Tie her so that she cannot bite the parts. Rub well with the blister once daily, for two days. On the third day apply sweet oil. Turn in a loose box now and oil every day. As soon as the scale comes off, tie up and blister again, and after this blister once every four weeks until she has been blistered four or five times. If my diagnosis is correct, this will at least mitigate the symptoms, and probably cure. V.

Miscellaneous.

SEEDING WITH SPRING GRAIN.

I have about twenty acres that was in oats last year. It is clean and well plowed, the land is clay loam, not very rich. I would like very much to seed it down with clover and timothy (alsike or red). What kind of grain would I best sow, and what quantity, and how shall I mix my grass seed.

YOUNG FARMER.

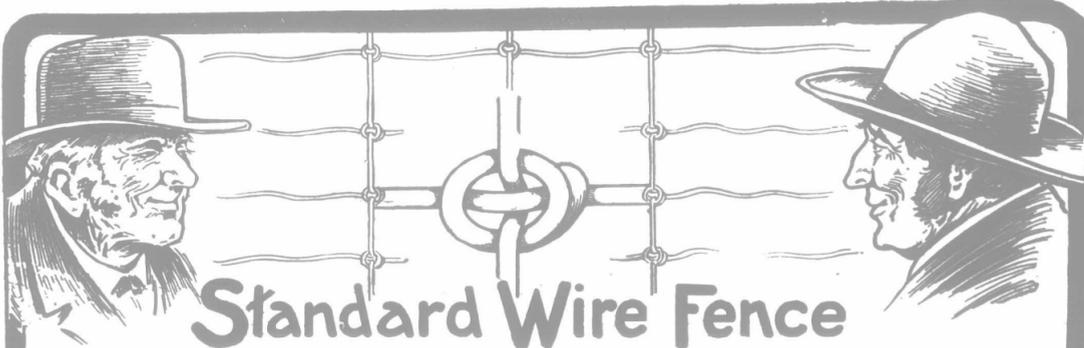
Ans.—Seed down with barley at the rate of a bushel and a half of barley per acre. With this sow 4 lbs. timothy, 8 lbs. red clover and 2 lbs. alsike per acre.

TRADE TOPICS.

TOURIST SLEEPING CARS TO THE WEST.

For a thoroughly comfortable trip to Winnipeg, any point in the Northwest, or the Coast, reserve a berth in a Canadian Pacific tourist sleeper, leaving Toronto daily at 10.15 p. m. Cost of a roomy berth is but \$4.00 to Winnipeg, \$5.00 to Moose Jaw, \$6.00 to Calgary, \$8.50 to Vancouver. They are fine vestibuled cars, well lighted, heated and ventilated. Berths are furnished with bedding, linen changed daily, every convenience is provided, and an attentive porter in charge. See nearest C. P. R. agent regarding berths, which should be secured well in advance of date of leaving.

Owing to the rapid increase in the export business of the Page Wire Fence Company, of Walkerville, Ontario, since the introduction of its "Empire" white fencing for railway, farm and ranch use, it has been thought best to have the foreign business handled by a company of a name similar to that of the fencing, and to this end the Empire Fence Export Company, Limited, has been formed. It is owned and controlled by the same people as the old company. The head office and factory, will be at Walkerville, Ont.



## Standard Wire Fence

Then there's the "Tie That Binds"—the greatest little invention of recent years.

No trouble with cattle breaking through and destroying crops. No fear of fences being down after an ordinary storm.

There are no soft wires—no weak spots in the "STANDARD."

"Standard" Wire Fence is all No. 9 Hard Steel Wire, that has the strength and lasting qualities which every farmer wants.

All wires are well galvanized. That means no rust and long wear—and the crimp in the wires allows for contraction and expansion.

Get the true facts about wire fences. Write for our book and sample lock.

THE STANDARD WIRE FENCE CO. OF WOODSTOCK, LTD. - - - WOODSTOCK, ONT. 8

## OIL CAKE

The finest feed known for stock. Once a user, always a user. Sold either fine or coarse ground. Write:

**J. & J. Livingston Brand**

**DOMINION LINSEED OIL CO., LIMITED,**  
BADEN, ONTARIO. 31 Mill St., MONTREAL, QUE.

**HOLSTEINS and YORKSHIRES FOR SALE**

**R. Honey, Brickley, Ontario,**  
NORTHUMBERLAND COUNTY.

Bulls fit for service, from cows with large records. Sows fit to mate, also young pigs, both sexes, of the very best bacon type. Prices reasonable.



**BUSINESS HOLSTEINS!**

Over 60 head to select from. Milk yield from 60 to 85 lbs. a day, and from 35 to 47 lbs. a day for 2-yr-olds. There are 10 2-yr.-old heifers, 8 1-yr.-olds, and a number of neifer calves. Bulls from 1-yr.-old down. Priced right. Truthfully described. **W. Higginson, Inkerman, Ont.**



## RAW FURS and HIDES

Write for Weekly Price Lists. Shipments Solicited.

**JOHN HALLAM - TORONTO, ONT.**

**Riverside Holsteins**

For sale: Seven young bulls from two to nine months old, out of Record of Merit cows, sired by Sir Pieterje Posch De Boer, whose dam and sire's dam average in official test 25.87 lbs. butter in 7 days, and 87.6 lbs. milk in 1 day.

**J. W. Richardson, Caledonia, Ont.**

**Centre and Hill View Holsteins**

We are now offering 8 choice young bulls from 6 to 10 months of age, with high official backing. These are a grand lot of young bulls. We are entirely sold out of females for the present.

**P. D. EDE,**  
Oxford Centre P. O., Woodstock Sta., Ont.



## HOLSTEINS

We must sell at least 25 cows and heifers at once in order to make room for the increase of our large herd. This is a chance of a lifetime to buy good cattle at bargain prices. The best way to arrange to come and look the herd over. If you cannot, we will do our best for you by correspondence. Also a few young bulls. 100 head to select from. Imported **Pontiac Hermes**, son of Hengerveld De Kol, world's greatest sire, head of herd. All leading breeds represented.

**H. E. GEORGE, Crampton, Ont.**



**Spring Brook Holsteins and Tamworths.**

32 choice young Tamworths from imp. sows, and sired by imp. Knowle King David, of best British blood and Royal winners. Correct type. Holsteins of best strains. Write for what you want, or, better, come and see. Will not exhibit this year. Stock better than ever. **A. C. HALLMAN, BRESLAU, WATERLOO CO., ONT.**

**Homewood Holsteins!**

For sale: 6 cows 5 years and under, to freshen this spring. Bull calves: One from Queen Butter Baroress, 2nd prize two-year-old at Guelph, 4.4% fat; one from Lanthe Jewel Mechthilde 3rd. 1st prize two-year-old at Guelph, 1907 4% fat; one from Lady Aaggie De Kol 2nd, daughter of sweepstakes cow, A. R. O., 27 lbs. butter in one week, 88 lbs. 11 ozs. milk in one day. Satisfaction guaranteed.

**M. L. & M. H. HALEY, SPRINGFORD, ONT.**

**HOMESTEAD HOLSTEINS**

For sale: Bull calves sired by the champion, Count Mercedes Posch, whose nearest dams' records average 25 lbs., and out of Advanced Registry dams.

**G. & F. GRIFFIN,**  
Burgessville, Ont. Oxford Co.

**Cattle and Sheep LABELS!**

Metal ear labels, with owner's name and address, and numbers. Sample and prices mailed free. **F. G. James,** Bowmanville, Ont.




**Maple Glen HOLSTEINS**

For sale: Two bull calves born April 28th. One sired by Brightest Canary; dam of calf has 22 1/2 lbs. butter record, over 4 per cent. fat. The other from 19.48-lb. 2-year-old A. R. O. test, sired by a bull with a 22 1/4-lb. tested dam, with 93 lbs. milk 1 day. Also a 4-year-old cow due in Oct., sire's g. dam sister of Carmen Sylvia. **G. A. Gilroy, Glen Buell, Ont.**

When Writing, Mention This Paper.

**SUMMER HILL HERD OF HOLSTEIN CATTLE**

If you are thinking of buying a choice young cow or heifer in calf, come and see our herd. We want to sell. Will price anything, and guarantee it just as described. Our stock bull, Summer Hill Choice Goods, has 5 half-sisters that average 29 1/4 lbs. butter in 7 days, and one 4-yr.-old half-sister, Champion of the World, with 31.62 lbs. butter in 7 days. His dam gave over 18,000 lbs. milk in one year. Visitors cheerfully met at Hamilton by appointment.

**D. C. FLATT & SON, MILLGROVE, ONT.**  
Bell Phone in House: 2471 Hamilton.

**FAIRVIEW HERD** The greatest A. R. O. herd of HOLSTEINS in northern New York. Headed by Pontiac Korndyke, the greatest sire of the breed, having five daughters whose seven-day records average 29 1/4 pounds each, and over 4 3/4% fat. Assisted by Rag Apple Korndyke, a son of Pontiac Korndyke, out of Pontiac Rag Apple. 31.62 pounds butter in 7 days, and 126.56 pounds in 30 days, at 4 years old. Cows and heifers in calf to the above two bulls for sale, also young bulls sired by them out of large-record cows. Write, or come and inspect our herd. **E. H. DOLLAR, Heuvelton, St. Lawrence Co., N. Y., near Prescott, Ont.**

**Now** is the time to buy a bull for service next year, because we sell **CHEAPER** now than we do next spring. Why not write to us **RIGHT AWAY** for a **BARGAIN** in bulls from R. O. M. dams? Or better yet, call and see us.

**E. & F. MALLORY,**  
FRANKFORD, ONTARIO.

**The Maples Holstein Herd!**

**RECORD-OF-MERIT COWS.**

Headed by Lord Wayne Mechthilde Calamity, also in the Record of Merit. Several choice bull and heifer calves; also one bull fit for service.

**WALBURN RIVERS. Folden's Corners, Ont.**

**EVERGREEN STOCK FARM**

Females all sold. Still have a few young bulls from 12 to 15 months old, sired by a son of Tidy Abbekerk, record 25.58 lbs. butter and 581 lbs. milk in 7 days. Dams also in Record of Merit.

**F. E. PETTIT, Burgessville, Oxford Co., Ontario.**

**Maple Hill Holstein-Friesians**

**Special Offer:** I must sell in next 30 days two cows; one bred in Nov. to Prince Posch Pieterje C.; one fresh in Dec., just bred. One yearling bull fit for service.

**G. W. CLEMONS, ST. GEORGE, ONT.**

**DON'T** Buy a **HOLSTEIN BULL** till you get my prices on choice goods from 14 months to 1 month old, from best producing strains. "Fairview Stock Farm." **FRED ABBOTT, Harrietsville, Ont.**

**HOLSTEINS** Two bull calves, two yearling heifers, two two-year-old heifers. Prices right for quick sale. **White Rock and Buff Orpington eggs.** Utility pens, \$1 per setting; exhibition pens, \$2 per setting. **DAVID RIFE & SONS, Hespeler, Ont.**

**Young Holstein Bulls** For sale: Two Holstein bulls 11 months of age, sired by Cornelius Posch 2nd, and out of young cows that are showing up well. Will be sold cheap for quick sale. **Josh Harrison, York Mills, Ont.**

**Afflicted for years with a Diseased Liver**

Mr. L. R. Devitt, Berlin, Ont., better known, perhaps, as "Smallpox Ben," has used

**MILBURN'S LAXA-LIVER PILLS**

He has also used them for his patients when nursing them, and it is a well-known fact that small-pox sufferers must keep the bowels well regulated.

Read what he says:—"I have been afflicted for years with a diseased liver, and have tried all kinds of medicine, but of no avail until about four years ago I tried your Laxa-Liver Pills, and got instant relief. Since then I have nursed different patients afflicted with small-pox, and in each case I have used your valuable pills.

"My wishes are that all persons suffering with stomach or liver troubles will try Milburn's Laxa-Liver Pills. I will advertise them whenever and wherever I have an opportunity and I hope that if at any time I cannot get the pills, I will be fortunate enough to get the formula."

Milburn's Laxa-Liver Pills are 25 cents per vial or 5 vials for \$1.00, at all dealers or will be mailed direct by The T. Milburn Co., Limited, Toronto, Ont.

**THE CLEANEST THE LIGHTEST THE MOST COMFORTABLE**

**TOWERS' Pommel Slicker**

and cheapest in the end because it wears longest

EVERY GARMENT GUARANTEED WATERPROOF

TOWERS CANADIAN CO. TORONTO CAN.

**The "STAY THERE"**

Aluminum Ear Markers

are the best. Being made of aluminum they are brighter, lighter, stronger and more durable than any other. Fit any part of the ear. Nothing to catch on feed trough or other obstacle. Your name, address and any series of numbers on each tag. Sample tag, catalogue and prices mailed free. Ask for them. Address: WILCOX & HARVEY MFG. CO., 194 Lake St., Chicago, Ill.

**OHIO IMPROVED CHESTER WHITES.**—Largest strains. Oldest-established registered herd in Canada. Young sows in farrow. Choice pigs 4 weeks to 6 months old. Pairs furnished not akin. Express charges prepaid. Pedigrees and safe delivery guaranteed. E. D. GEORGE Putnam, Ont.

"David," a Scotch character, had a big mouth ornamented with a big tooth in front. Some of his friends wished him to have it removed, but he would not listen to them. He maintained that the Almighty had some purpose in putting it there, so it did not become him to frustrate that purpose. One day at a public dinner a maiden lady of uncertain age and appearance quizzed him about being a bachelor. With the bluntness of those days she said at last: "If it were not for that tooth I might take ye myself." Looking in his quaint way at her he quietly replied, "The Almighty likely put it there then to save me from that fate."

**DODD'S KIDNEY PILLS**

FOR ALL KIDNEY DISEASES

CURES RHEUMATISM, BRONCHITIS, BRIGHT'S DISEASE, DIABETES, BACKACHE

Continued on next page

**QUESTIONS AND ANSWERS. Miscellaneous.**

**GRANGES.**

To whom should I apply for information about farmers' Granges? R. G.

Ans.—E. C. Drury, Crown Hill, Ont., Master of the Dominion Grange, or J. G. Lethbridge, Alliance, Ont., Secretary.

**CORN: YIELD, COB, AND DUTY.**

What is a fair yield of corn (grain) per acre? In 100 lbs. of corn on cob, what per cent. is corn? Is there any duty on corn coming from the United States for seed? R. G.

Ans.—The average yield of Canada's corn for husking was estimated at 62.45 bushels for 1908. Seventy-five or eighty bushels is easy to secure, and among good corn-growers 100 bushels or more is not uncommon. The per cent. of corn to cob varies with different varieties. Dent varieties range from 78 to 86 per cent., shelled corn and flint varieties from 74 to 81 per cent. For individual ears, the bulk of shelled corn is practically equal to that of the whole ear. Corn for seed is admitted free of duty.

**WEIGHT OF SILAGE.**

What is the weight of silage per foot in a round silo, 12 feet 2 inches, and 32 feet high, which had been filled in September, and after feeding 16 feet was refilled the last of December. What will be about the weight of the last 4 or 5 feet in the bottom? SUBSCRIBER.

Ans.—The estimate for silage of average quality, and put away under average conditions in a silo 12 feet in diameter and 32 feet high, is 73 tons. Since your silo is 12 feet 2 inches, the capacity will be somewhat greater, but 75 tons will not be far astray, unless the corn was very tightly tramped. Weight also will vary, according to the maturity of the corn, and the length of time between cutting and putting in the silo. The corn that was put away in December would be considerably lighter per foot in the silo than that stored in September. The bottom four or five feet would weigh, approximately, 12 or 15 tons.

**WANT ADVERTISEMENTS.**

Could you give information about where a person could buy fillies in Canada which are of the Baron's Pride stock? I have noticed from the report of sales that many of the sons of Baron's Pride are in Canada. If you could give a list of these noted horses and their present owners in "The Farmer's Advocate," I think you would confer a favor on horsemen who are looking for something good but don't know just where to go. In most cases the farmers have a chance to use good imported horses, and if they had fillies such as I inquire for, we would soon have a much better standing as breeders of heavy horses. R. O.

Ans.—It is very certain that in proffering the foregoing suggestion, our correspondent does not realize fully the nature of his request. Were it accepted and acted upon, it would simply be one step towards converting "The Farmer's Advocate" into a free-advertising medium. His communication may, however, appropriately serve a useful purpose in drawing attention to the awakening demand for high-class female equine breeding stock.

But why should it be left to the owners of such stock to do all the advertising? Why should not the man who wants a certain class of stock make known his wants by means of printers' ink? Fillies of Baron's Pride breeding are not held in large assortment by any Canadian horseman that we know of, and those which are distributed throughout the country are not begging for buyers. Nevertheless, we venture the opinion that a neat display advertisement in "The Farmer's Advocate" would bring a considerable number of replies, and a satisfactory percentage of business. An advertisement of the following style could be nicely arranged in a half-inch space.

WANTED—High-class Clydesdale fillies, preferably of Baron's Pride breeding.

R. O. —

B. —, Ont.

Rates and additional particulars will be furnished on application to "The Farmer's Advocate."

**FOR SALE BY AUCTION**

AT FARNHAM FARM, ARKELL, ONT.,

**40 Registered Oxford Down Ewes,**

ON MONDAY, THE 15TH OF MARCH, 1909, AT 2 O'CLOCK SHARP.

The following valuable animals, bred to our first-prize and champion imported rams, which are themselves either by imported rams or sons of imported rams, 20 of them are yearlings, and the rest in the prime of life. They are a good lot, and will be sold without reserve to make room for others. This is a rare chance to get high-class sheep. Pedigrees will be furnished with each animal.

TERMS—\$10 and under, cash; over that amount, 9 months' credit on approved notes. Five per cent. discount per annum for cash. Guelph, G. T. R., five miles from the farm. Arkell, C. P. R., right at the farm.

JAMES McDONALD, Auctioneer.

Henry Arkell & Son, ARKELL, ONTARIO



**SHEEP SCAB**  
And How To Cure It

A book that should be in the hands of every shepherd, farmer and stockman who raises sheep.

It tells what "Scab" is—how to detect it—how the disease spreads—how to cure it—and how to rid the flocks of it.

This book was written by men who have had 65 years experience in raising sheep, and whose famous rams, ewes and lambs have taken first prizes at the leading fairs of the world.

FREE Copy of this valuable book will be mailed free, if you tell us in what paper you saw this advertisement and how many heads of sheep you have.

WM. COOPER & NEPHEWS,

TORONTO.

**Southdown Sheep**

Unequaled for fine quality of both mutton and wool, hardness of constitution, and earliness of maturity.

**STRIDE & SON,**

Will sell by auction

at **CHICHESTER, SUSSEX, ENGLAND,** on AUGUST 18th and 19th, next 1909, 6,000 Southdown ewes (August 18th), 500 Southdown rams and ram lambs (August 19th).

On **SEPTEMBER 15th,** next, 1909, 4,000 Southdown ewes, 500 Southdown rams and ram lambs.

Commissions at these sales, or any other time, carefully executed. Telegrams and cables:

**STRIDE & SON, CHICHESTER, ENGLAND.**

Postal address:

**Stride & Son Chichester, Sussex, England.**

**SOUTHDOWNS AND COLLIES.**

Long-distance Telephone.

Orders now solicited for especially-fitted sheep. Your choice of early lambs from imported and prize-winning Canadian-bred ewes, and by the sire of the Grand Champion wether at Chicago, 1907. Twenty shearlings, the choice of last year's lamb crop, also for sale.

**ROBT. McEWEN, Byron, Ont. Ry. Stn., London, Ont.**

**SUNNYMOUNT BERKSHIRES**

Highest standard of type and quality. For sale: Sows of all ages, and 4 yearling boars. A grand, good lot. Also younger ones. Pairs not akin. **JOHN McLEOD,** C.P.R. & G.T.R. Milton P.O., Ont.



**Maplehurst Herd of Tamworth Swine, Bronze Turkeys, Toulouse Geese, Pekin Ducks, S.-C. W. Leghorns.**

Tamworths of excellent breeding and ideal bacon type. Herd won sweepstakes at Toronto and London, 1905-6-7-8; winnings at World's Fair, St. Louis, 1904.—sweepstakes aged and junior herd, and two grand championships. Apply to: **D. DOUGLAS & SONS, MITCHELL, ONTARIO.**

**MAPLE LEAF BERKSHIRES**

For sale: Sows bred and ready to breed. Guelph winners among them. Boars all ages. The highest types of the breed. Imp. sires and dams. Pairs not akin. C.P.R. and G.T.R. **Joshua Lawrence,** Oxford Centre, Ontario.



**CHESTER WHITE SWINE**

A choice lot of young stock. Write for prices. **W. E. WRIGHT, SUNNYSIDE FARM, GLANWORTH, ONTARIO.**

**February Offering!**

A choice lot of young **SOWS in pig. BOARS ready for service.**

A good lot of September and October pigs. Pairs supplied not akin. Orders taken for young pigs. Prices moderate. Write or call on:

**H. J. DAVIS, WOODSTOCK, ONT.**

Importer and breeder of Shorthorns and Yorkshires.

**Willowdale Berkshires!**

Won the leading honors at Toronto this fall. For sale are both sexes and all ages, from imp. stock on both sides. Show things a specialty. Everything guaranteed as represented. **J. J. WILSON, MILTON, ONT., P. O. AND STATION. C. P. R. AND G. T. R.**

**Morrison Tamworths, Sherborns and Clydesdales.** Tamworths from Toronto winners. Either sex. Any age. Sows bred and ready to breed. Pairs not akin. **CHAS. CURRIE, Morrison, Ont. Shaw Sta., C. P. R.**

**MONKLAND YORKSHIRES**

are the easily-fed, quick-maturing kind. The sort the farmers want. All ages for sale. 100 sows bred now.

**JAMES WILSON & SONS,**

**FERGUS, ONTARIO**

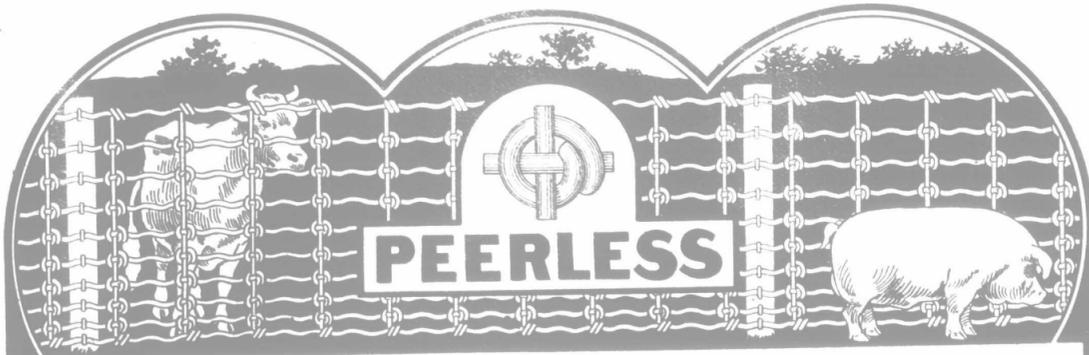
**Newcastle Stock Farm**

I have a splendid lot of **TAMWORTH SOWS** well forward in pig, and well worth looking after; also grand selection of boars, 3 months to 10 months old, several prizewinners, and a lot of dams that have been prizewinners all over this part of Ontario. I have also a few choice Shorthorn heifers well forward in calf to my Cargill-bred bull, and others ready to breed. All will be sold well worth the money. **A. A. COLWILL, NEWCASTLE, ONT.**

**DUROC-JERSEY SWINE**

Imported and home-bred. Sows ready to breed. Boars fit for service, and younger ones either sex. Also Embden geese. **MAC CAMPBELL & SONS, HARWICH, ONT.**

**ELMFIELD** 50 young pigs for sale, both sexes. Young sows bred to imported boar, also sows to Canadian-bred boar due to farrow about 1st October. **G. B. Muma Ayr, Ont. Ayr. C.P.R.; Paris, G.T.R.**



## The Fence You Can Depend On

Peerless is **better** fence because it is made on right principles, from good material, by good workmen—in a well equipped factory.

The **PEERLESS** lock holds the horizontal and cross wires securely at each intersection. Ample provision is made for contraction and expansion due to sudden changes of temperature, sudden shocks, etc.

**THE BANWELL HOXIE WIRE FENCE COMPANY, Ltd.**  
Dept. B, Hamilton, Ont. or Winnipeg, Man.

PEERLESS Fence is made of all No. 9 hard steel wire—well galvanized. When well stretched it never sags—never bags—looks well and wears well. That's why it is "the fence that saves expense."

Improved farm equipment means larger profits for the farmer. PEERLESS Woven Wire Fencing is the latest improvement in farm fencing.

Our free booklet will tell something new about fencing. A postal card will bring it.

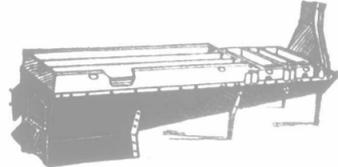
## To Turn Any Kind of Stock

### LAND FOR SETTLEMENT

Lands are offered for settlement in some cases FREE, in others at 50 CENTS per acre, in various districts in NORTHERN ONTARIO. Write for information as to terms homestead regulations, special railway rates, etc.

HON. JAMES S. DUFF,  
Minister of Agriculture,  
Thos. Southworth,  
Director of Colonization, Toronto.

### Owners of Maple Groves



With the same attention devoted to your maple bush as you give your other lines, you can make more money in two weeks making maple syrup than can be made in two months at ordinary farming. The Champion Evaporator does the business. Made in 22 sizes. Write for booklet.

THE GRIMM MFG. CO.,  
58 Wellington Street, Montreal.

### Well DRILLING & PROSPECTING MACHINES

Fastest drillers known. Great money earners!  
LOOMIS MACHINE CO., TIFFIN, OHIO.

# VIM, VIGOR, VICTORY

Hurrah for the winner! It takes nerve and red blood to win! Success to the athlete, success to men in every walk of life depends upon Vim and Vigor as much as good generalship. The "staying quality," the tenacity of purpose, that carry off the honors in the field of athletics are born of a vigorous nervous system, powerful muscles and a bounding pulse, and it's these same qualities that constitute the foundation of success in every occupation. Rightly the world heaps honors upon the men of "push" and frown upon failure. "Victory to the brave, the battle to the strong."

Many a successful man of to-day—you can find him in the workshop, the mill, on the farm, or holding high official position—remembers the time he sought my aid and dates his success, his happiness in life, from the time he discovered and applied my grand remedy, ELECTRICITY. This wonderful force, when applied with the Dr. McLaughlin Electric Belt, is Nature's True Invigorator. It has made thousands of weak men strong and vigorous; has enabled them to turn defeat into victory; to achieve the success in this world that comes only to him who is able to put up a strong fight, a long fight, to conquer the obstacles that are ever in the path to fame and fortune.

The most powerful factor that has made my business a success is the warm recommendation given to my appliance by the men who have used it, and I continually place this evidence before you, day after day, week after week, month after month. You know you are not the man you ought to be. You don't want to be a "misfit" forever. In this day of vast opportunities you can't afford to be merely a spectator all your life. Get some "live wires" in your system! Build up your "Nerve Power" by a constant steady infusion of the Electric Current, night after night, for a few weeks. Use the Dr. McLaughlin Electric Belt! It has transformed thousands of physical wrecks into successful men and women in the past, and is doing the same work to-day. Get on the "firing line"! Strike defeat to the right, to the left, and the world will make way for you! Just read what people say who take my advice and use this Belt:

Dear Sir,—I am very thankful to say that I feel much better, both in strength and health. My back doesn't hurt like it was, for I can do a day's work now as easy as I could before using your Belt. I wake up in the morning feeling fresh, not like before when I had that languid feeling. I have more life in me now. I am well satisfied with the Belt. I only wish I had obtained it before.

Yours truly,  
A RICKARDS, Petersburg, Ont.

Dear Sir,—I am pleased to tell you that I am able to follow the team all day. The money I paid you for your Belt was the best investment that I ever made. When I got your Belt, I had to use crutches to get around, and now I am able to do all kinds of farm work. I remain,

Yours truly,  
GEORGE McKAY,  
Box 325, Owen Sound, Ont.

Dear Sir,—I am glad to say that I am completely cured of my rheumatism by the use of your Belt. I certainly felt the benefit of it, and am glad to say that I have not needed the use of it for three years, so that I feel quite clear of it now. I answer any letters written to me about the Belt. Wishing you much success in your business, I remain,

Yours truly,  
JOHN CRAWLEY,  
Collingwood, Ont.

## YOU NEED NOT PAY UNTIL CURED.

As pronounced are my cures, so strong is my faith in my Belt to cure the human ills, that I do not hesitate to make you this offer. All I ask is that you give me security for the Belt while you wear it.

GEORGE J. JOHNSON, of Well Ont., says—"I used one of your Belts five years ago. I could not get any more. I never lost a day, or an hour. I got part with it at any time and I got another."

**CALL TO-DAY**  
**FREE CONSULTATION**  
**BOOK**  
If you can't call send coupon for free book.

DR. M. S. McLAUGHLIN, 112 Yonge St., Toronto, Can.  
Dear Sir,—Please forward me one of your Books, as advertised.  
NAME \_\_\_\_\_  
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Office Hours—9 a.m. to 6 p.m. Week-days and Saturdays until 8:30 p.m. Write plainly.



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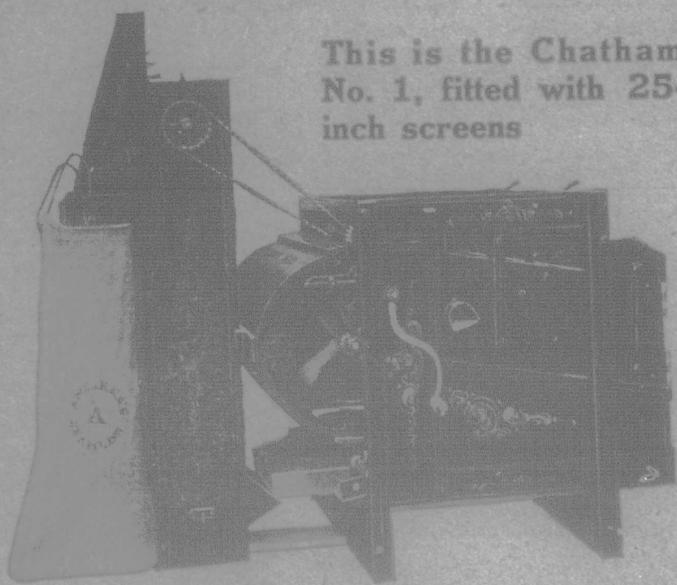
CAMPBELL

## Any Farm That Grows Grain Cannot Do Well Without The CHATHAM FANNING MILL

Warranted Positively to  
Separate Oats  
from Wheat—Perfectly

### HANDLES A THOUSAND BUSHELS A DAY EASILY

"I put my personal word and reputation back of every statement in this advertisement. I have been building Fanning Mills forty-two years; and I KNOW these improved machines actually will add at least five cents value a bushel to the grain you raise. Take one on free trial and prove it."—MANSON CAMPBELL, President



This is the Chatham  
No. 1, fitted with 25-  
inch screens



This is the Chatham  
No. 2, fitted with 33-  
inch screens

#### Try It a Whole Month Free

Send for either of these Chatham Mills right now, and clean and grade all the grain you intend to sow this Spring. Keep it a month and test it thoroughly, on all kinds of seed. Nothing to pay whatever. Then, if it doesn't do MORE than we say it will—then, if you don't see plainly that you can't farm right without it—send it back, without warning or explanation.

#### 'Twill Pay For Itself

This FREE test will SHOW you as nothing else could how much weed-seeds and poor grain there were in the seed grain you thought was clean. This is the mill that amazed the experts by taking out pounds of dirt and shrunken grain from seed wheat previously cleaned by other fanning mills. It does perfectly what no other mill ever did well—absolutely separates wild oats from wheat!

#### Runs Easiest—Works Fastest

The Chatham's gears are so designed, and the action of the screens and riddles is so perfect, that a boy can do better and far quicker work with these mills than engine-power does with any other. Even the smaller mill—No. 1—will clean, grade, separate and sack a **Thousand Bushels a day**. It handles any grain grown in Canada.



Chatham Grain Pickler

With this low-priced, well-built machine you can rid yourself of the wheat-smut pest. Made wholly of wood. Uses either bluestone or formalin solutions. Won't corrode, clog nor decay. New positive screw feed handles 60 bushels of wheat or 80 bushels of oats an hour, easily. Guaranteed in every way. Credit terms, if you wish.

#### Earns Money Two Ways

Use this mill on your seed grain, and your crop will be increased fully ten per cent. Then use it on the yield before you market it, and any buyer will give five cents a bushel more for it—because grain-buyers KNOW how perfectly Chatham Mills grade grain. They rightly trust these machines.

#### Easy and Safe to Buy

The month's FREE TRIAL will show you the Mill's perfection. You risk nothing. We shan't grumble if you send it back. If you like it—as you surely will—you can take two years to pay for it in, and the price will not make you hesitate a bit. Either Mill will pay for itself every season on every ten acres of grain you produce.

#### Notice This Guarantee

Every Chatham Mill is sold only upon the binding guarantee that it will work right on all kinds of grain; that it is built so staunchly it will last a lifetime with the commonest kind of care; and that it will positively separate oats from wheat better, faster and more perfectly than any other process that has yet been devised.

Warehouse nearest you can ship your mill on shortest notice if you accept free trial offer early—NOW. Try it THIS Spring, catirely at our own risk.

WRITE TO-DAY FOR OUR 1909 PROPOSITION

**The Manson Campbell Company**  
Chatham, Ontario Limited

Postcard brings you free book, explaining more fully, if you still have doubts. Chatham Mills took first prizes at Paris, Buffalo, and St. Louis World's Fairs. They DO make good.

Sow Clean Grain—Better Crops. Sell Clean Grain—Higher Prices. War with Weeds—Less Labor