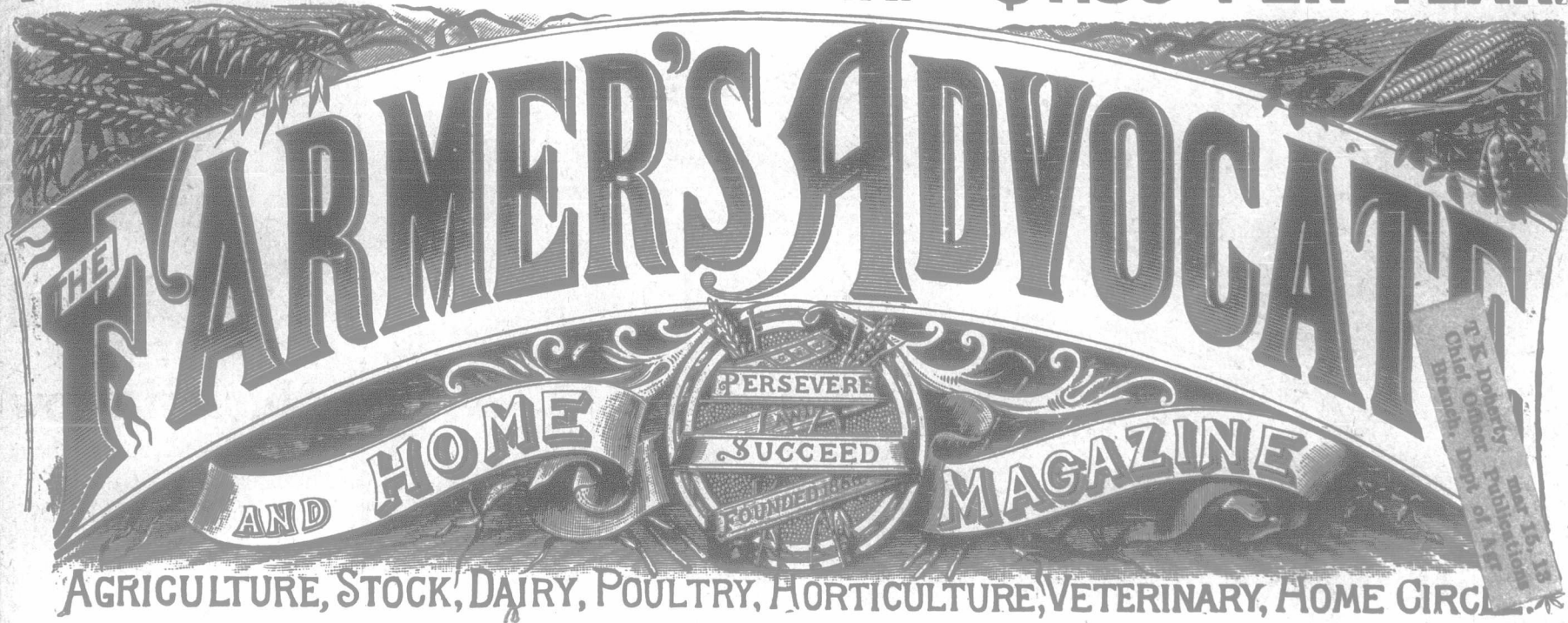


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Vol. XLVIII.

LONDON, ONTARIO, MAY 29, 1913.

No. 1079

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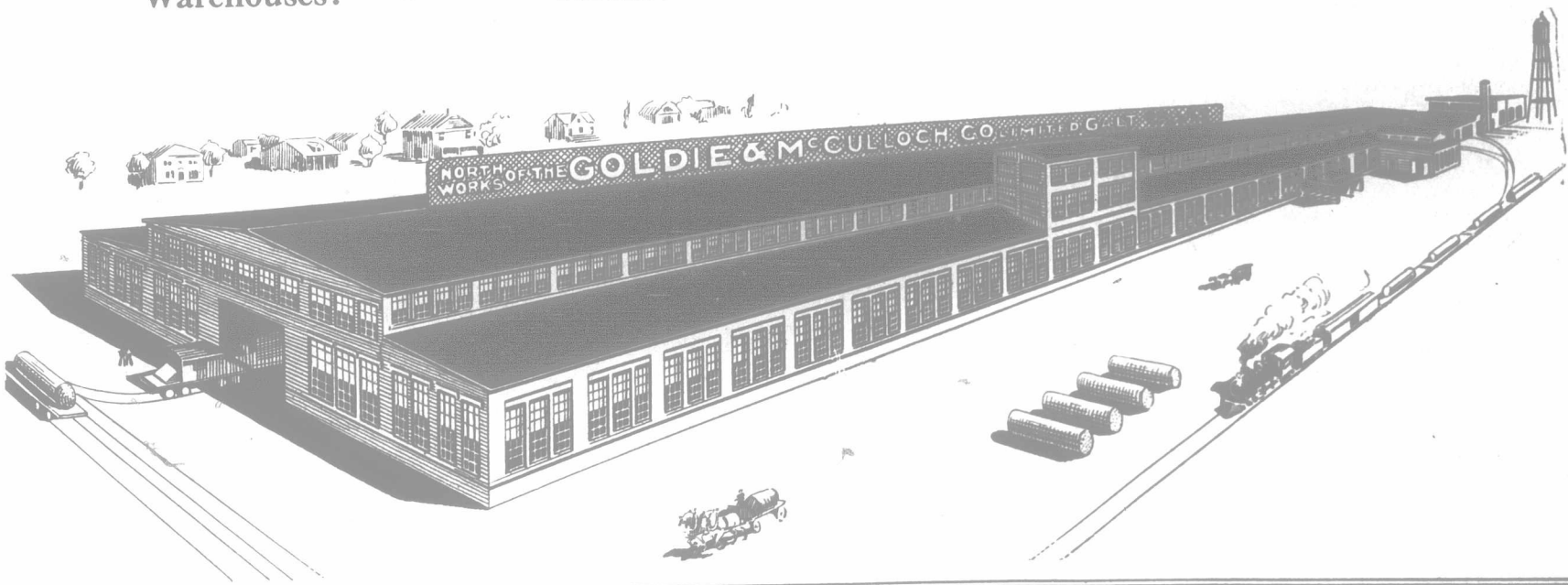
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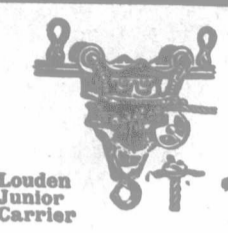
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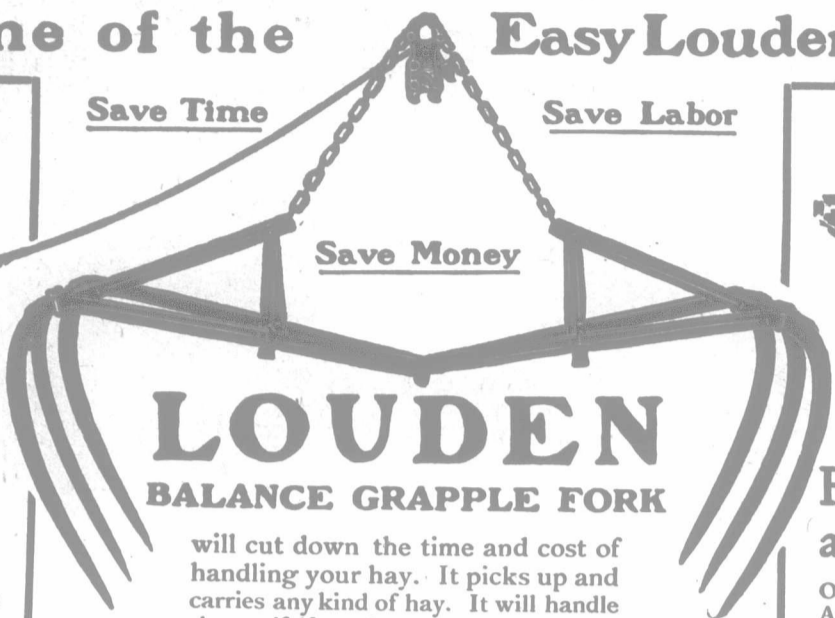
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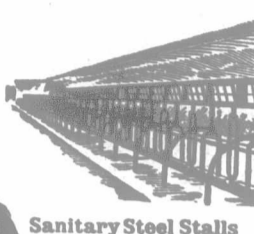
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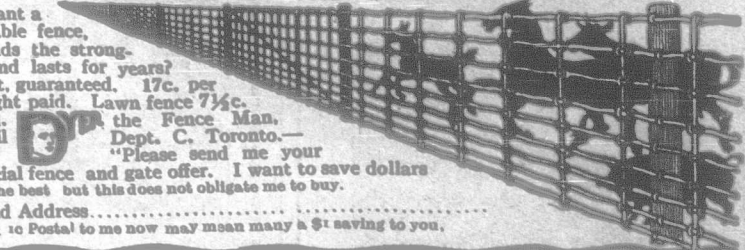
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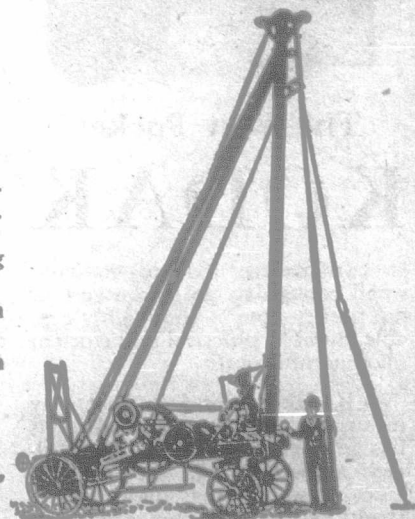
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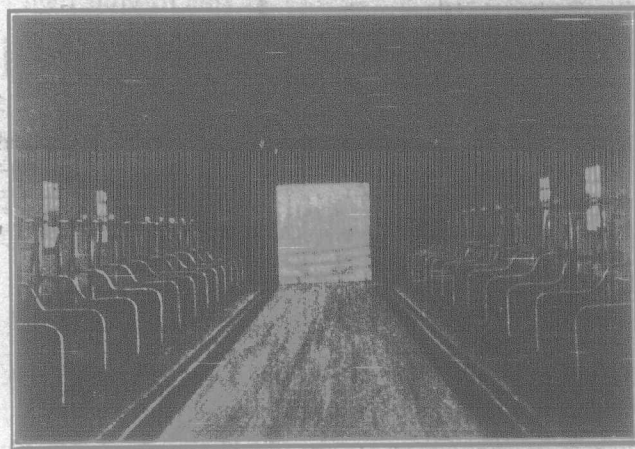
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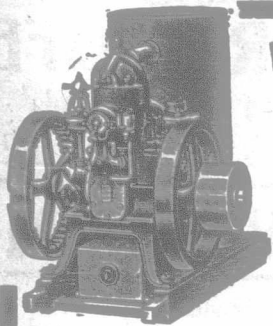
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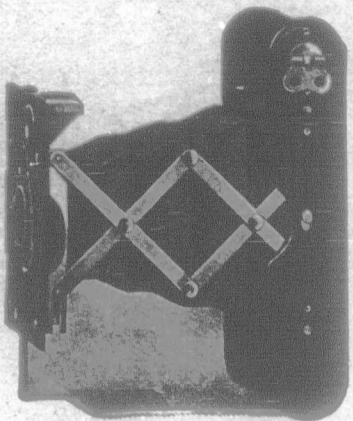
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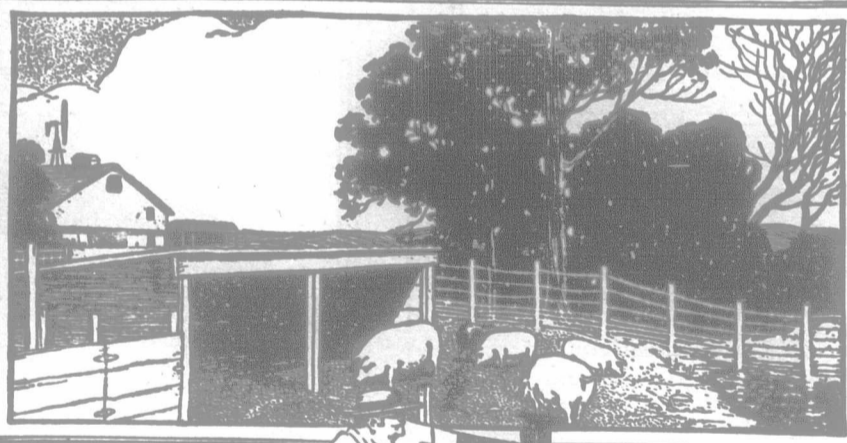
The DE LAVAL is acknowledged by creamerymen and the best posted dairymen the world over to be the "World's Standard," and the one and only separator that always accomplishes the best results possible, and always gives satisfaction.

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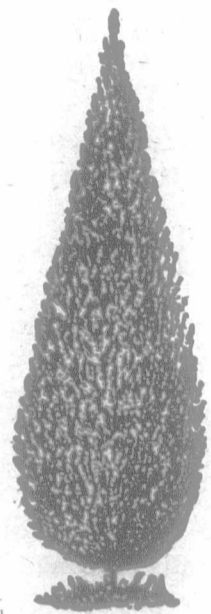
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Vol. XLVIII.

LONDON, ONTARIO, MAY 29, 1913.

No. 1119

EDITORIAL.

If we get a summer between the hot drouth of 1911 and the cold deluge of 1912, it will be a treat and relief.

We wrote last week about the inadvisability of plowing a field on the wet side, and then letting it lie untouched for days. The printers made it "west side," which spoiled the meaning.

One of the finest samples of oats we have ever seen was a few bushels of registered Banner which came from Prince Edward Island this spring. The Island Province can certainly grow oats.

The remark has been passed in some quarters that the revision of the Bank Act is not a matter which greatly concerns farmers. Ask sufferers from the Farmer's Bank failure what they think of that.

Why should the farmer with a comfortable home and business of his own, envy the man who may any day have to be seeking a job, and who never knows when he may have to vacate the house he occupies because of possible inability to meet the rent?

It is but a short while since fur-farming was a romance of the newspaper feature artist. While prosecuted in an inconspicuous way for some considerable time, it has recently in Prince Edward Island attained the prominence of an important phase of live-stock breeding.

If the same enterprise and capital were applied generally to the more prosaic branches of husbandry—sheep breeding for example—that have gone into the promotion of the silver-fox industry, would we not be witnessing some astonishing results in production?

Lightning rods, by establishing easy exchange of electric current between earth and cloud, prevent a great many lightning strokes from occurring, while nearly all the violent discharges that do strike downwards toward a rodged building are led quietly by the rods to damp earth below. It is only a rare bolt that is too terrifically violent to be attracted by the rod and conducted harmlessly earthward in this way.

Grubs and wireworms necessitate the breaking of many old pieces of pasture land. In such turfs the May beetle likes to lay her eggs, and here the grub can develop almost unmolested. New-ground pastures are often found fairly alive with them. They hold the grass back, and, come a drouth in midsummer, they will eat the roots off clean, so that large patches of thin turf may be rolled up like fleeces of wool.

A Toronto Winter Live Stock and Dairy Exhibition, promoted by the City of Toronto, with agriculturists, dairymen and live-stock men co-operating by invitation, is scarcely the idea which found so much favor among the stockmen at the last annual meetings. An exhibition organized and promoted by stockmen and dairymen, founded on broad lines and aspiring to national or international proportions, was the original conception.

Seed Men and Seed Supplies.

Those who have again sown and planted will, ere long, be realizing the results of their recent seed buying. It will be highly desirable to ask the question: Has it been satisfactory? Has the crop come true to variety and type? Is it pure of the kind purchased? Was it free from weed seeds? Did it germinate and grow vigorous plants? If a new variety or if it was procured from a distance, is it going to be any improvement on home-grown or neighboring stocks? Did you order a certain variety and receive, perhaps, an indifferent sample or something else? These questions cannot all be answered until harvest tells the tale, but if "The Farmer's Advocate" can judge by personal representations and correspondence received, the replies will be far from satisfactory in some cases; and a day of reckoning is assuredly in store for individuals and dealers who are more solicitous for the volume than the nature of their business transactions.

One reader procured from a local seed firm a quantity of a much-vaunted new oat which did not germinate at all, and the ground had to be resown with seed of an old, standard sort procured at home. Another advises us that when he went to look up supplies of seed corn he was shown what had every appearance of being bagged out of a car lot of feed corn, and tagged as a given variety to be sold at fancy seed prices. He went elsewhere. In several cases, seed of cereals has been found freely mixed with grain of other sorts, and, in other instances, proved very low in point of germination. Progressive farmers do not object to paying a fair price for improved seed of a variety that has demonstrated its merit or gives reasonable promise of doing well with them, but they most seriously object to being humbugged. From correspondence in the possession of "The Farmer's Advocate", the accuracy of which we have substantial reasons to credit, the word "robbery" would very accurately describe practices going on—let us hope to a very circumscribed extent—in the seed business. This has come to our knowledge partly by reason of qualms of conscience and partly because of a desire, on the part of one who had lately been actually "through the mill," to put farmers upon their guard, and bring about a better state of affairs in the seed trade.

What is one to conclude when in a given store stand bags of labelled seed—one "Canadian grown No. 1," the other "American grown No. 1" but both from precisely the self-same lot, and no matter which the prospective customer wrote or asked for, he received exactly the same?

Does a farmer, who sends his good money or express order for a certain kind of clover, wish to be served with a common brand that would, perhaps, make hundreds of dollars difference in the crop on a ten-acre field next season, because the "house" had neither the decency nor the courage to own up to the facts concerning their stock?

What is to be thought of the directions being given, no matter what variety of oats were asked for, to label those shipped so and so, and to substitute one variety of potatoes for another when they happened to look enough alike?

Age may improve some things, but could we expect to revive the mummies of Egypt by mixing them in new packages with modern people, or pasting fresh labels over them?

If a house chances to be out of a certain highly nutritive plant food, is it likely to put heart into the soil, to stimulate faith in fertilizers or put returns in the purchaser's pocket, to be sent under a misrepresentative label some cheap and worthless imitation?

Now, the seedsman plays an important part in relation to farming and gardening operations in this country, and it is far from an agreeable duty on our part to find it necessary to call attention to such things. Every reader of this paper should know what his experience has been, and he certainly would be wise to keep close tab on it this season and govern his future orders accordingly. "The Farmer's Advocate" is disposed to believe that, as a class, the seedsman trading in Canada are aiming to do a reputable business, and are no more likely to deceive people in the back townships than any other important class of business men. But evidently there are seed houses and seed houses, and between now and the next heavy run of orders it would be highly desirable, not only from the standpoint of those who plant seed but of the dealers themselves, to remember and put into practice that time-worn adage, "Honesty is the best Policy." As a matter of fact the unscrupulous dealer is certain gradually to strangle himself with his own crooked rope, and there is good reason to believe that the business of houses "making good" their claims of honorable dealings with all customers has multiplied three and four fold, while that of others, if report be true, has remained stationary or dwindled almost to the vanishing point.

It may not be practicable to make men moral by act of parliament, but it is due, to an industry like that of the farmer, beset with so many difficulties, to so adjust conditions that it may be conducted with a reasonable chance of producing at a fair profit, adequate supplies of food for the people. Clean seed that will grow is important and is a consideration that must never be obscured, but variety and the genuineness of stock purchased for planting or sowing will be demanded with an increasing insistence that the prudent seedsman must be prepared to meet. This is the time of domestic house cleaning, and if the foregoing complaints apply to any particular seed establishment, now is the accepted time to put these houses in order. If not, something is liable to drop.

Two Functions of the Agricultural Press.

A contributed article in this issue, belaboring a certain Toronto newspaper for publishing an editorial arguing that the people of America would have to endure high beef prices for several years, also chastises the agricultural press for failing to "attack" such articles. Why should we? What is the use or need? Were we to chase up and expose the folly of every bit of editorial vaporing how would we find time or space to present instructive and constructive ideas? So far as the article in question is concerned, we do not recollect that there was so very much wrong with it. To state that consumers will have to endure high prices, is not, stating or necessarily implying that these could or should be lower. Our correspondent's zeal for economic argument is liable to lead him to an obsession as it has led others.

There are two main lines of effort open to the agricultural press, neither of which should be al-

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,"
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lowed to eclipse the other. One is to fight for a square deal—something the farmer is far from getting to-day. The other is to encourage and assist him in making the most of conditions as they exist. Here we all are, engaged in the business of farming, depending upon it for a livelihood. It is up to each of us to do the best he honorably can for himself in the existing circumstances and a large part of the mission of "The Farmer's Advocate" is to enable readers to help one another by information, suggestion, experience and mutual exchange of ideas. Incidentally, we aim to help on the campaign for economic justice, urging, for example, the reduction of taxation on necessities such as ditching machines and cement; talking up co-operation, and, quite recently, advocating an effectual system of bank inspection to secure depositors and regulate the fundamentally important banking business in the interest of the people. But in doing these things we are particular to avoid that wholesale disparagement of farm profits and farm opportunities to which extremists sometimes resort. For all its handicaps and limited earnings, farming is still an attractive business to a man of the rural temperament. The attractions might be preserved and increased with advantage to the whole country, by more co-operation and by greater justice in taxation and trade, but that is no reason for crying down the business and consigning it to the everlasting bowwows. Our policy is, make the most of the conditions we have while working for better. Let enterprize be encouraged and wisdom brightened with hope. Let reason and sanity prevail.

There is no glory in star or blossom
Till looked upon with a loving eye;
There is no fragrance in April breezes
Till breathed with joy as they wander by.
—William Cullen Bryant.

Good Things Unappreciated.

"It is not many years," says the editor of the Quebec Journal of Agriculture and Horticulture, "since we saw manure drawn out on the ice during the winter to be carried away in the spring, and this was done by some farmers on the Island of Montreal. One kind farmer, more intelligent than the others, permitted his neighbors to dump the manure on his land, and thus save them hauling it a mile further to the river. The result was of course, that he had abundant crops, and after a few years the neighbors saw the joke."

It is extraordinary how inappreciative men can be when without the light of definite knowledge to guide them. To any ordinary farmer in Old Ontario, in the Maritime Provinces or in many parts of Quebec, it is well nigh incomprehensible how the value of manure could have been so long overlooked by those referred to in the clipping quoted.

Manure, however, is by no means the only good thing whose value has been despised. Time was in Upper Canada when bran was dumped into rivers to be rid of it. Clover was long in coming to its own in general public estimation as a crop and as a feed. Alfalfa is not yet appreciated by many at half its real worth either as a feed or as a soil builder and subsoil opener. If it were, an occasional failure or even a whole chain of failures, would not prevent farmers, whose situation holds out any hope of ultimate success, from keeping on trying, if only in a small way. Skim milk is rarely appreciated at its true worth to the calf raiser and stockman, while in seasons of low hog prices whey by the thousands of tons is pumped out of the tanks and spread over the fields, or even run into creeks.

"Knowledge comes, but Wisdom lingers," says the poet. Sometimes Knowledge seems to linger a good while too.

Nature's Diary.

By A. B. Klugh, M. A.

The lover of nature in this great country of ours has a great deal to be thankful for. For one thing he avoids that most deadening of all things—monotony. Our seasons differ radically from one another, by the time we are tired of the white blanket of winter along comes the bright, light greens of spring, and these in turn become the deeper greens of summer. Then when the greens have ceased to be a novelty comes the glorious blaze of autumn tints.

Just now we are revelling in the fresh lush greens of spring, the green of expanding leaves and fresh-sprung grass.

"And that's what we mean when we say that a thing is as welcome as the flowers that bloom in the spring"

sings Nanki-poo in the "Mikado." And is there any thing much more welcome? They are welcomed not only by the nature student, but by everybody young and old, with an atom of the "joy of living" in his or her make-up. But the welcome is often extended to them in rather a sad manner. They are plucked, carried a little distance and then thrown aside. Is there not something indicating a very low type of mentality in this performance? In a young child it is, perhaps, natural, for the child is a savage on its way to a higher state. But it is "the bounden duty of all parents and guardians" to guide the child to this higher state, and one most important path along which it should be directed is that of a proper and sympathetic regard for wild life.

Most attractive objects at this season of the year are the "crosiers" of the cinnamon fern, the light green "shepherds crooks" rising in little groups in moist places. A little later we shall see the outer row of sterile "fronds" (as the leaves of ferns are called) surrounding the cinnamon-colored fertile fronds. The fertile fronds are covered with little rounded spore-cases which contain the spores. In the case of ferns and their allies, the spore practically takes the place which is taken by the seed among the higher plants. But the spore does not, like the seed, develop at once into a plant similar to that which bore it, but in the case of the ferns it gives rise to a small, somewhat heart-shaped flat body called a "thallus." On this thallus are borne the organs which produce the egg and sperms. From the fertilized egg the young fern

arises. Other plants which produce spores are the mosses, and just now several species of mosses are quite conspicuous, one of the most striking being the giant hair-cap moss, often termed bear's-bed moss. In openings in the woods its velvet-like carpet, from which project the wiry yellowish stems bearing at their tips, the hair-covered capsule which contains the spores, makes an attractive picture.

What a glorious chorus of bird-song greets the early riser on these late May mornings! Before the first streak of dawn appears, the robins are carolling joyfully, and as the first dim light spreads over the landscape other musicians join the choir. From the aisles of the beech-woods comes the sweet chant of the wood thrush, from the tree-tops the rich refrain of the rose-breasted Grosbeak, from the swales the songs of the swamp sparrow, the Nashville warbler, the Canadian warbler, the water thrush, and the loud, clear "whicheety-whicheety-which" of the Maryland yellow-throat. With these are mingled the notes of a host of other species, and the drums are rolled by the downy woodpecker and the ruffed grouse.

The swallows are now back again coursing over our fields and waters, gathering up their quota of insect pests. We have in Canada several species of swallows, and to aid in distinguishing them I give here a "key" to the commoner species:—

- A.—Green above, white beneath—tree swallow.
- AA.—Blue above—
- B.—Tail forked—barn swallow.
- BB.—Tail even—cliff swallow.
- AAA.—Brownish above—bank swallow.

The bird which is commonly called the chimney swallow is not a swallow at all, but a swift, as it differs much in structure from the swallows and belongs to an entirely different family. Its true name is the chimney swift, and it is a very common bird around our buildings. It makes its nest of twigs stuck together with its own gluey saliva in our chimneys.

The nest of the barn swallow is a cup-shaped affair of mud built inside a barn, while that of the cliff swallow is a flask-shaped one placed outside under the eaves. The nest of the bank swallow is, as the bird's name implies, built in a burrow in a bank.

Insect life is now awakening, the earliest butterflies are flitting about, and soon insect music of various kinds will be heard in the land.

HORSES.

The stallion which stands for the lowest service fee is very often not the cheapest in the long run.

An Old Country horseman declares that he would rather breed from a horse with small feet of desirable shape and texture, than from one with large feet that are flat and shelly, believing that it is much easier to breed large feet from small ones, than it is to get good feet from bad ones.

No animal is more benefited by warm sunlight than a young foal, but it is necessary to provide shade during the hottest days of summer, especially with very young foals, which may be overcome by the intensity of the heat if compelled to remain out in the scorching sun unprotected.

A livery-stable and cab-horse owner of 25 years experience expresses himself as not in favor of clipping horses in the spring, on the ground that it is unnecessary and causes the hair to grow in more thickly. In his view, if a horse is properly conditioned and groomed, it will shed its coat naturally and present a better appearance.

An American stallioner, writing in "Wallace's Farmer," estimates that it costs him \$487.50 per year to keep his stallion, divided as follows: oats, \$45.00; corn, \$5.00; bran, \$15.00; a commercial feed, \$7.50; hay, \$30.00; care, 3 months, at \$135.00; care one month, \$50.00; total, \$287.50. To this he added \$100 for insurance and \$100 depreciation in value. How does this compare with the cost of your stallion?

A stallion cannot be expected to get the very best colts from all types of mares which are bred to him. To be fair to him and also to the mares some effort towards suitable mating must be made. For instance, if the mare is a little "chubby" select a fairly large horse, well set up, and if she is inclined to be leggy, use the blocky stallion. Extremes must be avoided. Very up-standing lanky sires and also those which are too small and chunky should be avoided.

Negligence.

Under the sub-heading "Negligence" a writer in an English contemporary gives some sound advice on caring for the colt. No one, he says, who attends horse shows regularly, and examines the classes of young light horses critically, can fail to have noticed how badly many otherwise good-looking youngsters stand. In young show horses, (hackneys and hunters) the fault he has noticed is very prevalent, and two causes are assigned for it—over-forcing and negligence. The body and growth of a two-year-old on a yearling reflects that while it is easy enough to grow flesh and muscle and to get increased size, it is not so easy to grow bone and joints strong enough in proportion to carry the extra weight. This he believes to be a potent cause of faulty standing.

Citing cases which are common in his experience and which are also common in this country, he writes about going to the fields to look over a breeder's stock and upon being shown a foal, said, "he is standing incorrectly and his feet require attention and dressing," the common answer is, "Oh, he will come right in time," or "There is not much the matter with him," or "We will see to him when the busy time is over."

"It is this attention to the feet of young horses, foals, yearlings, two-year-olds, and three-year-olds equally which is one of those 'unseen jobs' that gets neglected in a busy time. There is nothing to show that it is neglected unless something more than a perfunctory look is given to the young light horses, and this perfunctory look is about what they get on many farms at a busy time.

"It may happen that the farmer himself does not really in his heart care very much for his light horses. He seems to think, in many cases, as with the kodak, all he has to do is to press the button in the way of good feeding, and they will grow up without any further care. When he finds that this is not the case, he gives up in disgust, and says light-horse breeding does not pay.

"It seems reasonable that the light horse should need particular attention to his feet, because the strain upon his joints is much greater than with the heavier horse. He is higher couraged, and his spells of galloping, and sharp pulling up and buckling are a very heavy strain on his weak and undeveloped joints; and it stands to reason, that, where there is special weakness, and there is generally some place that does not come up to the standard of perfect strength, some place that, either by accident or naturally does not quite do its full duty, there will be a corresponding want of correctness of position. In a horse that stands perfectly level, an imaginary line drawn from the ground to the knee along the cannon bone will have equal portions of the various joints at each side of it; the horse will stand true and more freely. But if the inside, say, is lower than the outside wall, that imaginary line would come out at the outside of the knee, and all the joints would work more or less stiffly, inducing a leg weariness and sometimes bringing about a bad fall. So it is essential that an absolutely level surface of the walls of the hoof should be maintained, and there should be careful and constant examinations to see that this is done."

Take for example of malformation and cure, pigeon toes, as it is called, when horses turn their toes in. Here the weight falls on the outer quarter of the foot. This, of course, wears faster than the inside quarter, and so the fetlock, instead of growing straight as it should do, gets out of the perpendicular. If the inside quarter is rasped down till it is lower than the outside quarter, this will tend to equalize matters, and of course this is not quite such plain sailing as it appears, because it is possible that sufficient horn cannot be rasped off without making the foot tender, which, of course, should always be avoided. In this case the best possible must be done, and the foot frequently attended to until it will bear light plates or shoes, when of course, the matter can be righted. Turning the toes out is cured by exactly the opposite treatment. Even that very unsightly malformation, upright pasterns, can at any rate be modified by skillful treatment. The heels must be kept as low as possible, and if care is taken to see that they are lowered regularly, there will be considerable improvement in course of time. But all these things must be done when the horse is young, when his bones and joints and sinews are amenable to treatment. It is worse than useless to start with him when he has about got his growth. And for successful treatment it is necessary to make a very early beginning and to be regular in attending to the feet.

The Sure Sire.

How many of the best type of stallions are rather shy breeders! A stallion owner was recently heard to remark that most of the horses which were considered fairly sure do not get more than fifty per cent. of the mares bred to them with foal. Of course, the failure of the mares to conceive cannot all be laid to the stallion. Very often the mare is a shy breeder, and sometimes barren. But is it not a fact that a good many horses get few foals because they are not properly managed, or have been practically ruined by injudicious treatment in former days? A colt which has been kept over-fat and deprived of exercise, very often gets few foals. One which has served too many mares in a season while yet young, often proves to be in after years, almost sterile. Then there is the common mistake of too many services in one day. True, all owners are anxious to please customers and to do a "big season," but it is found to be rather expensive accommodation when the mares come back time after time, and eventually prove barren for the year. The sire to prove sure must, under most circumstances, receive good care. We recently were told of a colt which, last year at two years of age, served fifteen mares and got fourteen with foal, and the mare which missed had not had a foal for several years. This, on the face of it, seems to be a light season, but doubtless it was enough for a horse of this age, and the results were extremely satisfactory. The colts are coming strong and vigorous, and the horse himself was not injured in growth, easily weighing now in his three-year-old form 1,800 pounds, in good breeding condition. It is planned to breed him to not more than sixty mares this year, and these to be well distributed throughout a season longer than the usual one. So far he appears to be just as sure this year as he was last. It means much to the mare owner to know that the horse to which he takes his mares is, if the mares are breeders, reasonably sure to get colts. The stallioner as well is greatly benefited. His horse gets a deserving good name, and returns his owner a better profit on his keep. It is foals

outcome will be, in the judgment of Mr. Sage, that the market will be over-supplied, and prices slump back to about where they were in those days when the motor vehicle was not the factor that it is now. Really good horses will always be in demand at good figures but prices even of these will naturally be unfavorably affected if there are over supplies of the lower grades.

The Noted Sire's Share.

The Live Stock Journal says: "It is always desirable, if possible, that the farmer should use a stallion of some reputation or with a good pedigree to his name, for that serves to make the foals bred all the more saleable. This applies in particular in breeding of hunters and Shire horses. Dealers and others who buy unmade young hunters from the breeder generally make a point of asking who the sire is, and always feel inclined to offer a better price for a young horse sired by some well-known stallion whose stock has already turned out well in the hunting field, than for a colt got by an obscure sire. Similarly in the case of Shire stock, the fact of a filly being by a fashionably-bred or prize-winning stallion gives her special value for breeding purposes, so that she is worth considerably more in the market than one whose pedigree counts for naught."

It is equally true of all breeds. The known sire's colts are invariably more valuable than those from unknown stock, even though the latter are just as good individuals. Buyers look for the colts from the noted sires. If raising colts for sale keep this in mind.

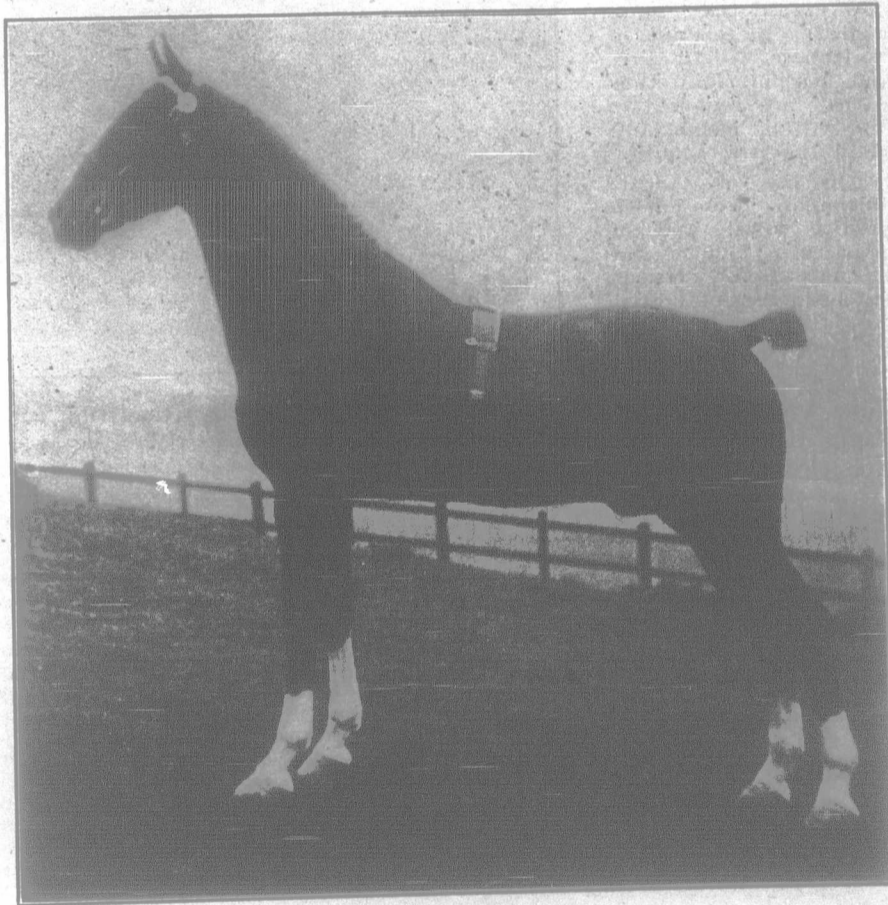
LIVE STOCK.

Milkweeds are said to be poisonous to sheep, at any rate they will not eat them unless driven to it from hunger.

From investigations carried on by the United States Department of Agriculture, it has been learned that live stock do not usually eat poisonous plants by choice, but only when induced or compelled to do so by scarcity of other feeds.

A successful cattle breeder was heard to remark a few days ago that he believed the cattle were not suffering so much from scouring, due to being turned on very "sappy" grass, this year as much as they do some springs. He said the grass seems "harder" due, he believed, to the cold, dry weather which prevailed early in May checking the rapid growth and giving the feed more substance.

A Western Ontario man recently sold two grade calves, just about one year old, for \$40 each. These calves were not fattened, but had been raised on skim milk and were well fed throughout the winter. They were bought as stockers. They must have paid the raiser



Moordale Toreador.

Reserve grand champion at the London Hackney Show.

that count and not the number of mares bred, fairly well. How will the feeder make out? and the quicker stallioners and mare owners realize this fact the sooner will better success in breeding come.

Advice from a Dealer.

One of the most experienced horsemen and dealers of London, (Ont.) Frank E. Sage, concurs in the statement recently made through "The Farmer's Advocate" that the most difficult horse to secure in Ontario at the present time is a good-moving, sizable driver of quality, and such are likely to continue high in price. At the same time he expresses a caution especially deserving attention at the beginning of the season, against the wholesale and indiscriminate breeding that has been going on, that will result in overstocking the country with a class of horses as before the South African war. The inevitable

Diagnosing Abortion.

The Farmer and Stock Breeder reporting an address on contagious abortion, by Sir John McFadyean, Principal of the Royal Veterinary College, says that one of the important things he had to tell was that there was now known a method by which one could diagnose the disease with infallible certainty. The test consisted in taking a small quantity of blood from the suspected animal, allowing this to clot, the clot eventually squeezing out the clear liquid water which was called serum. This mixed with some of the bacteria which had caused the disease acted on the bacteria in a way which became perfectly obvious in the test tube to the naked eye. If the abortion was other than contagious, or if the animal was not affected, then was such

effect produced on the bacteria. The theoretical method by which everyone could protect himself from this disease was to isolate his new cow, heifer, or bull for two or three weeks, and have his or her blood tested in the way he had described, and if the test exonerated the animal it could mix with the other stock with perfect safety. The method had surprising results wherever tried. There was no known medicine which could cure an animal attacked with abortion. Vaccination of animals was in the air, but there were no published statistics as to what its real value was.

Our English Correspondence.

ENGLISH LIVE STOCK NOTES.

Wharfedale Show has opened the English outdoor season, and once again has sporting Lord Middleton scooped the pool in Shorthorns at this Yorkshire show. He scored in bull calves with Birdsall Champion and in yearling bulls with Bacchus. The best bull in the exhibition, however, was Dean & Sons' Scotland's Standard, a roan with fine quality and character. Gold medal for female championship went to T. H. Maden's Hawthorn Queen, a beautiful level roan, with good brisket, deep in her ribs, and level over her top.

In Shires at Wharfedale, A. Grandage, the Cheshire breeder, produced a rattling two-year-old stallion, Duke's Double, a massive bay, by Halstead Royal Duke, and very much like him in character. Sir Arthur Nicholson, who showed his Shires to King George the other day at Leek, won with a three-year-old filly, Chipping Fair Lass, a short-legged, wide, and powerful mare, full of quality and a fine free mover.

The fall of lambs in England this season appears to be above the average, and the losses not more than usual. Generally lambs and ewes are healthy. In Scotland a number of deaths have occurred in Central Aberdeen and in Berwick. Sheep are backward in Dumfries, and "thin" in South-west Fife. Regarding the hill ewes, stock on the common grazings are in a very miserable condition, consequent upon the continual rain, and it is now stated that more than half of the sheep have died. In Ross sheep are in poor condition, in Caithness, North Ayr, and South-east Lanark and Kircudbright they are "lean", and "some deaths" are reported in North and East Perth. This will be melancholy reading for Scots domiciled in the new country.

At the Dumfries Show, by the way, Lieut. Colonel G. T. Ferguson-Buchanan won with Goldrum Ruby in aged Ayrshire cows, and in the milk-cow classes and in pairs he had several other winners. The silver medal for tenant farmers fell to A. G. Russell's six-year-old, bred at Aithenbrae, and got by St. Barchan. In Clydesdales the champion silver cup fell to James Kinloch for his brood mare Ardoch Jean, a daughter of Hiawatha.

A Yorkshire gentleman, Charles Thellusson, Broadworth Hall, Doncaster, has become enamored of the Aberdeen-Angus, and is forming a new herd. He has been to Scotland to make selections from the Earl of Strathmore's herd and that of W. S. Ferguson, Pictstonhill. More head were bought at the Eshott sale, held in consequence of the death of T. H. Bainbridge. At this fifty head were sold at an average of \$20 dollars each. Chief price was 1075 dollars paid by A. T. Reid for the three-year-old Proud Grace of Eshott, probably the finest of her age in Britain. She was led into the ring with two very pretty twin heifer calves at foot. The twins realized 165 dollars between them.

Pig breeding is on the increase in Scotland, and Perth is to have a bacon curing factory.

A Swedish machine has carried off first prize in the Royal Agricultural Society's milking machine trials.

The famous Aberdeen-Angus herd at Cullen House is to be dispersed in the autumn. Here is a chance for a Canadian bargain hunter to run over for a holiday, and make a bit as well.

South Africa is importing Shorthorns at a rapid rate. The possibilities of the vast grazing lands within the countries of the Union, and also of Rhodesia have long been recognized, and development of these districts is bound to follow upon settlement and the investment of capital. Shorthorns of both beef and dairy types are, at the present moment, being bought. Young bulls and heifers are what the South African buyer is "after" just at the moment.

Sir Tatton Sykes, Bt., who bred two Derby winners, Doncaster (1873) and Sparmint (1906), died recently at the age of eighty-seven years. He seldom ran a horse himself, but bred Shorthorns to some extent.

The King and Lord Roberts have each "blessed" the soldier team of polo players who have sailed to U. S. A. to bring back the cup the Britisher's lost at polo. The Duke of Westminster is paying all the expenses for the ponies.

His income has been worked out at six dollars a second.

The young Prince of Wales has offered a silver cup, of the Irish pattern, for the champion cow (all types to go in) at the Bath and West Show. He is taking a deep interest in farming, and is reviving the stud farm on his own estate in the Duchy of Cornwall.

Sir Walter Gilbey has celebrated his 82nd birthday, and is still hale and hearty.

The famous old Hackney stallion "Gentleman John" made his reappearance in the sale ring at the pedigree sale of Hackneys held at York House Colne, Hunts, by direction of I. B. Wright. Despite his twenty odd years "Gentleman John" made as good a show as a five-year-old. Few horses have had a more meritorious career, the championships and prizes to fall to his lot in the '90's being almost legion. He was for a long time at the head of N. G. Heaton's stud. At Chatteris Ferry that gentleman paying 5,000 dollars for him. Heaton in 1902 sold Gentleman John to go to America, where two years running he won championship at New York. It was not until he was 19 years of age that he was broken to harness and won in leather. On his return from America in 1910 Heaton purchased him, and he eventually joined Mr. Wright's stud. He has now found a new owner in A. J. Newman at 72 dollars.

London, England.

G. T. BURROWS.



A Cool Dip.

Sheep-washing is not the common practice it once was. Most shepherds clip their sheep early, which can be done when work is not so pressing, and the sheep are not burdened with a heavy fleece in hot weather.

Sore Feet in Cattle.

When looking over a very fine herd of grass-finished steers about a year ago, several were noticed to be more or less lame, due to a soreness in the feet. This trouble is not uncommon, and a few points dealing with it by an American veterinarian may aid some feeder to diagnose and treat his lame cattle.

The lameness is caused by an abscess-like formation between the hoofs. The starting point is usually a small scratch or abrasion in the skin, which offers a suitable avenue for the entrance for the germ causing the trouble. These germs live in the soil, manure, and other filth about the yards and feed-lots. During the dry weather they cause very little damage. When the yards are muddy, or the stables unclean, or the cattle pasture in wet places, the growth of germs is favored. At this time also the continued action of the wet, foul material makes the skin between the claws tender and easy to injure.

An examination of the lame foot will usually reveal swelling and tenderness. If the space between the claws be cleaned out, the skin abrasion is usually plainly evident. Sometimes there is a thick, cheesy covering of grayish pus over the surface of the sore. At other times the pus may burrow beneath the skin, and even form pockets that are filled with this cheesy material.

Treatment consists in keeping the affected animal out of the mud and wet manure for several days. Thorough cleansing of the part with any of the coal-tar dips, using five teaspoonfuls per pint of water once daily, is very necessary. All loose shreds of skin should be cut away, and pus pockets well drained. In mild cases, the application of pine tar proves a very effective treatment. The severer forms should receive, in addition to thorough cleansing, a dressing of equal

parts of iodoform and boric acid under a bandage for several days. Taken in time and vigorously and persistently treated, healing should not be prolonged beyond a week. If left alone, some cases soon assume the most severe type, which means delayed healing and more bandaging and dressing.

The Wool Outlook.

The Canadian Textile Journal, commenting on the Canadian wool outlook, says, that it is expected that this year's domestic clip will be much larger than it has been for some years, especially in the West. The Journal comments favorably on the Federal Government's proposal to encourage sheep raising in the foot-hills of the Rockies, and also the scheme providing for two wool sorters to be placed at the disposal of associations to assist in grading the wool and preparing it for market, and in addition to this, the offering of the department to pay 25 per cent of the cost of transportation of such graded wool to the London market. Continuing the Journal says: "But in taking such action, we think that particular attention should be paid to the home market, which has been and is able to use a much larger quantity of the domestic clip than has been provided in anything near good condition. It will be advantageous to the growth of the

wool-growing industry in this country, to have a good home market for the wool, and this can only be provided by paying particular attention to the requirements of the mills here. If a part of the clip is to be well graded and well prepared for the market, it should be offered to the Canadian mills where it will command as good prices as anywhere. Canadian wool will only be popular on foreign markets when it has established a much better reputation than it now has on the home market. The principal reason for its success on the English market this year, was the shortage of the wool supply, as hitherto English buyers have shown a distinct apathy toward Canadian wool on account of the disgraceful manner in which it has been marketed. These buyers are well informed regarding conditions here, and pay close attention to the manner in which our mills receive the clip, so that we think if a good reputation is established at home, a good market will easily be found in the foreign exchange for any surplus there may be."

There seems to be something doing. With a prospect of the removal of duty on wool entering the United States and also a chance of marketing wool in England, growers are looking for better returns from their wool. Providing they can get just as much for it in the home market as to send it abroad, they would rather sell it here but the opening of these two new channels will surely better conditions. Home buyers realize this, and are early angling for the trade. But there is one thing in which growers have been negligent, and that is, the promiscuous and shiftless manner in which wool has been sorted and put up for sale.

A Good Calf Meal.

The Irish Department of Agriculture has carried on some extensive experimental work in calf feeding, to ascertain whether it is the more economical plan to rear calves up until time of weaning on whole milk, or on whole milk from four to six weeks after birth, and subsequently on separated milk to which some butter-fat substitute has been added. Three feeds were used containing such substitute viz., (a) A mixture consisting of five parts separated milk and one part of whole milk, approximating in composition to hand-skimmed milk. (b) Separated milk and cod-liver oil. (c) Separated milk and a mixture of meals. In addition to each of these rations a little nutted linseed cake was fed. The results clearly demonstrated that, although calves fed for a considerable period on whole milk will show a high rate of increase, as compared with

the gain in weight made by animals reared on other foods, the increase is obtained at too high cost to be profitable. It was also found to be much more economical to use separated milk along with a outter-fat substitute after calves are from four to six weeks old. The best financial results were obtained from the calves fed on separated milk and a calf meal composed of one part ground flaxseed, two parts oat meal and two parts of maize meal. The experimental evidence is based on work done at fifteen different centres in eleven counties. The calves numbered 130 and were divided into two even lots of 60 each. The calves averaged seven and one-half weeks old at the commencement of the experiment which lasted 117 days.

Fattening Cattle on Bundle-Corn.

While we, in this country, believe in the silo as being the best method of saving corn fodder for winter feed, there are other methods of handling the corn crop to advantage, according to a Minnesota bulletin by Ray P. Speer. The farmer, whose scheme is outlined in the bulletin, has achieved success by growing a cheap feed, by working out an economical system of buying cattle, and by devising an efficient scheme of farm management. These are the three most important considerations when it comes to showing a balance on the right side of the ledger in cattle feeding. Cheap feeders, cheap feed and a permanent system of cheap feeding form the basis of the work, cheap roughage being recognized as the one great essential to satisfactory profit. F. W. Hubbard, the man whose system we here outline, purchased 120 acres of weedy soil and a carload of each of two classes of cattle, stockers and feeders, is handled each winter. The stockers are immature cattle which it would be extremely difficult to finish in one winter, and the feeders are more mature cattle suitable for finishing in one winter.

The stockers are purchased in the fall, and kept over winter to follow the feeders which are being finished for market in the spring. They are pastured during the next summer, and turned into the feed lot as feeders. Each carload of stockers is kept about eighteen months—during one winter and one summer as stockers, and one winter as feeders.

The carload of stockers is purchased about November 1st, and placed on pasture. About December 1st, these cattle are placed in the feed lot to run after the feeders which have been kept on the farm one year. The stockers remain in the feed lot until the middle of May, when, after the feeders have been sold, they are turned out to pasture. They remain on pasture until about December 1st, when they are driven into the feed lot as feeders, never to leave it until ready for market.

The feed-lot equipment is not an elaborate one. The cattle are fed in a lot fifty-four by ninety feet in size. This lot is well protected from the cold winds of winter by a right-angled shed on the north and west. A barn on the north-eastern corner of the lot also affords some protection. The lot is well fenced with strong cedar posts, and 2 x 6 hemlock boards. Fences, building and equipment are all painted.

The large shed for the feeders is 74 by 16 feet, and the smaller one for the stockers 54 by 16 feet. These are combination closed-and-open sheds, well-ventilated, open on the lee side, and fitted with sliding doors to be closed against unfavorable winds. The steers are kept well-bedded and two feed racks are provided, each rack to accommodate twelve steers. They are watered from a galvanized tank.

The main feed of the steers is bundle-corn. The change from pasture to this feed is made gradually before the cattle are finally placed in the feed lot. Fallen ears from the corn field are fed to the cattle in small amounts daily in October. When this is used up, a bundle of corn is fed to each steer daily. By the first of December the cattle have become accustomed to the bundle-corn, and are turned into the feed lot. The poorest-eared corn is fed first to prevent over-feeding, and it often requires two months to get the steers on full feed.

Feeding begins at 8.00 a. m. each day. The stockers which have been in the feed lot all night are turned back into their shed. The racks are cleaned and filled with bundle-corn, one layer deep and packed fairly tight. The feeders are turned into the lot an hour later, more bundle-corn is thrown into the racks to complete the morning feed. As many bundles are given as the steers seem to be able to handle. The aim is not to overfeed, and yet to give all that will be consumed.

At 11.30 a. m. the feeders are turned into the shed and the stockers are allowed to pick over the stalks in the feed racks. At 4.15 p. m., the stockers are driven back, the racks are cleaned and filled, and the feeders are turned out again. At 8.30 p. m. the feeders are driven in for the night, and the stockers are turned out. This

method of feeding is continued until about the middle of May, when the feeders are shipped to market.

The stockers are given access to the feed lot from 11.30 a. m. to 4.30 p. m., and from 8.30 p. m. to 8.00 a. m. each day. So keen are their appetites that there is little bundle-corn left when they have finished eating. No other feed is given them except two bushels of shelled corn at noon, about five pounds of corn to each stocker.

In a general way, the plan is to give both feeders and stockers two substantial feeds each day. The same time of feeding is carefully observed each day, as the cattle will make substantial gains only when fed regularly. Salt is kept before them constantly in a tub in one corner of a rack. The steers are never disturbed, and every opportunity is given them to rest and make gains.

Brood sows are placed in the feed lot to follow the cattle. These sows farrow in the spring, and often again in the fall. Fifty sows were fed in this manner last year, and got nothing but the waste corn left by the steers, and a slop given them twice a day, composed of one pound of shorts and one-half pound of oil-meal per sow daily. No loss of pigs has so far resulted, the sows' litters averaging 8.85 pigs.

The sows are sheltered in the sheds. In each shed at the northwestern corner, a pen sixteen by sixteen feet in size has been partitioned off for them. The steers are not admitted to the hog pens. A systematic method of feeding is followed in caring for both groups of hogs. In the morning the sows which follow the feeders are turned out with the steers until they have received their slop, when they are driven back into the shed again until the bundle-corn, has been picked over. They are driven back to prevent them from pulling corn out of the rack. The sows are allowed to run in the yard with the feeders about an hour after the feeding is done. They are driven back into the shed with the feeders at 11.30 a. m. The same method is repeated at 4.30 p. m. The sows which follow the stockers are turned out with the stockers at 11.30 a. m. and at 8.30 p. m., and fed the same amount of slop given to the other sows.

The pigs from the sows are kept until six weeks of age, and are sold at about \$3.00 each. A few milk cows are bought each year. These cows give a good supply of milk when bought, or are about to freshen. They are fed bundle-corn only during the winter, and are milked regularly. In the spring they are sold as butcher cows at prices always in excess of those paid for them. Milk and butter for the home is, in this way, supplied, and some butter is also made to sell.

Bundle corn is the ration, and so it is necessary that an excellent quality of this material is produced. The old corn fields are harrowed early in the spring to level off all stubs, and to form a dust mulch to check loss of moisture. Plowing is delayed as late as possible, so as to allow weeds to germinate. The best possible seed-bed is produced, and the corn is planted from May 28th to June 5th—not too early. Harrowing is continued after the corn is up to four or five inches in height, always harrowing across the rows. The corn is sown thickly to produce fine stalks, and the smaller, heavy-eared varieties are chosen. Few cultivations are required. The crop is cut as soon as the husks have turned white, although most of the leaves are still green. The ideal crop of bundle-corn consists of an immense amount of fine, bright, well-cured fodder, bearing many ears. The bundles are made large and are placed in extremely large shocks, the large shock being the secret of good bundle-corn. Twelve corn rows constitute one shock row, and about fifty bundles are placed in each shock. Two men shock after the corn binder. The bundles are set as nearly perpendicular as possible, and they remain in the shock until required for feed. On cattle marketed in 1911 a return of 34.3 per cent. on the investment was made, and this was one of the poorest years he has had. This, to say nothing of the profit made on the pork, was not a bad return. The actual cost of keeping each sow was figured out to be just a trifle over two cents per day, as none of the corn they got, being all charged against the steers, could be charged against the sows.

The success is due to the raising of a cheap, palatable and easily-grown feed, which can be readily converted into meat and milk, and also to the fact that the cattle are secured at the smallest possible cost, and the farm well managed to feed them off. Ensiling, husking or shredding is avoided in the feeding of bundle-corn, and corn can be grown and fed in this condition, according to the bulletin, for about one-half the cost of silage. The bundle-corn has produced steers which have topped the market, as grown by Mr. Hubbard, it has been found, as grown by Mr. Hubbard, it has been found very palatable and nutritious. Mr. Hubbard favors the buying of thin stockers at a low

price, and feeding them over the winter as indicated, fattening them the second winter. There isn't the demand for the thin stockers, and they can generally be bought at a low figure. They follow the fattening steers, utilizing what would otherwise be waste, and, purchased one year ahead of the feeding off, they are accustomed to the feed and make more economical gains. Animals less than 20 months old are not purchased, as it is desired to have feeders that are nearly three years old or older.

About 38 acres of corn is produced yearly, not much hired labor being needed at any season as the remainder of the farm is rough and used for pasture. Steers are fed and young pigs raised at a profit, and all the manure is saved and returned to the corn ground thus keeping up the fertility of the soil, corn having been grown successfully on the same 38 acres for twelve consecutive years. Good farm management is necessary to get the best returns from live stock, and each feeder must adapt himself to the peculiar circumstances surrounding him.

"The Dearth of Cattle."

Editor "The Farmer's Advocate.":

A leading Toronto daily some weeks since, entitled an article in its editorial column, "The Dearth of Cattle."

The editorial pages of many of our papers furnish a great portion of our comic reading. Yet this article can scarcely be treated as a joke for it is plainly intended to be taken seriously. Moreover, it exhibits such a serene disregard for facts, logic and sane reasoning, that it deserves our attention.

This editorial, after commenting on the falling off in the export trade in cattle from the United States, remarks: "From this there is only one conclusion, and that is, that the people on this continent will have to endure high beef prices for several years."

Prices that are not remunerative enough to keep the producer in the business cannot be reasonably termed "hard to endure."

In a land continually criticized for its leaning towards materialism it is safe to assume that production will be stimulated when the financial returns warrant, and only then.

Donald Sutherland, M. P., of South Oxford, gave an address at Ingersoll, some years ago, before the Western Ontario Dairymen's Association, in which he said:

"When I consider that it has been demonstrated at the Ontario Agricultural College, that it takes 8 to 9 cents to produce a pound of beef live weight, while I have been selling my beef around 5 or 6 cents a pound, I feel that I have been something of a philanthropist."

The average journalist, whose periodic excursions into the discussion of agricultural subjects, reveals his blissful ignorance of rural economics, apparently forgets that the producers of the stalled beef in this country in the past have been philanthropists. That they have been underpaid might be proven in many ways. The best and only proof necessary, however, is the fact that beef animals have decreased in number in this Province at a very rapid rate as statistics prove.

The writer of the article referred to, goes on to say, "There must be a revolution of cattle raising before prices begin to fall materially." When prices do not at present warrant sustained production, it is surely an intelligent view that expects a material fall in prices.

This editorial goes on to say that "Canada has a splendid opportunity under present circumstances to build up a far-reaching cattle industry." I agree with this statement. The first thing necessary, however, is the exposing of the fallacious doctrine that present prices are exorbitant, which is being done to death at present over this country.

Why is it that in the numerous articles on the high cost of living, the producers of farm products receive the major portion of the abuse?

According to the best authorities on journalism, papers publish what the public demand in so far as they can follow this out, without offending those parties who advertise extensively in their papers.

There is probably a popular demand for articles blaming somebody for the present high cost of living. Abuse always follows the line of least resistance. Why not abuse the producer? He does not advertise in the paper to any great extent. He is not defended by any influential organization, therefore he is not liable to strike back. He is not represented in Parliament to anything like the extent that his numbers would warrant. He is rather indifferently defended by the Agricultural Press. At least the Agricultural Press lay themselves liable to this charge, by neglecting the opportunity of attacking articles similar to the ones here referred to, which so often come their way.

The editorial page of our papers either reflects

public opinion, or seeks to establish and educate it. It matters not which for the sake of this argument. This, however, is clear, that the producer is receiving more than his share of the blame for the present high cost of living. Of all men attacked the producers of beef cattle are possibly the least deserving of blame. If we, as farmers, allow journalists to unduly emphasize the idea that present prices of farm products are "exorbitant" and that present prices of beef are "hard to endure," without justifying our position in the matter, we will in future richly deserve what we will surely get, and the "far reaching cattle industry" referred to, may not reach as far as some of us might wish.

In the numerous discussions of the high cost of living the point is often overlooked, that the high cost of living is not owing to the exorbitant price of the necessities of life entirely. It is rather owing to the multiplicity of the luxuries which we cannot do without, even if what are commonly called the necessities of life have to be dispensed with.

Much energy has been spent to introduce scientific methods to increase agricultural production. We require some system of marketing that will procure for the producer a fairer share of the profits derived from his labor.

The eloquent articles, blaming the producer for the high cost of living, have become monotonous. By way of variety could we not have a little investigation that would reveal the true parasites of the country, who can fold their arms and earn their bread by the sweat of someone else's brow with a peace of conscience that passeth all understanding?

Those who deplore the present high cost of living might be able to accomplish more if their efforts were turned in this direction, and their efforts would then stand a far greater chance of being on the side of honesty, justice, equity and truth.

Lambton Co., Ont.

J. E. LATTIMER.

THE FARM.

Ear Test Reveals Surprises.

Many corn growers are of the opinion that they can tell by the appearance of an ear, whether it will grow or not. In the majority of cases they can, but an ear test reveals some surprises. By an ear test, of course, we mean a test by which four, six or some other definite number of kernels are taken from each ear and placed in a separate square of a box to germinate, the ears being numbered with mucilage stickers and the squares filled in order to correspond. Some likely-looking ears will sprout only five out of six kernels or even fewer, while some that an amateur would be inclined to reject will be represented by six germinating kernels. As a general thing, corn that has been judiciously dried by artificial heat, with air circulating through it, will make a much more even and satisfactory showing than corn which has been merely hung up without special ventilation or artificial heat. This is especially true of well-bred corn, with close rows of deep kernels and small cobs. Where growing corn in hills, a full stand of vigorous plants is very important. Moral, get the best seed corn you can, and if possible make an ear test of it. This suggestion was offered early, but is repeated by way of emphasis to impress the point for future heed.

Crushed Stone for Concrete Silo.

Good clean gravel not being handy, how many cords of stone should one have crushed to build a silo 14 by 35 feet by 5 feet, to be in the ground? Also the amount of cement required? The thickness of the silo wall is to be as you think best.

T. F.

Ans.—A silo 14 x 35, with walls 10 inches thick at bottom tapering to six inches at the top and with a cement floor, would require about 12 cords of gravel and 42 barrels of cement. As to the amount of stone to have crushed to substitute for gravel, we cannot instruct you better than by appending the comment of W. A. McLean, Provincial Engineer of Highways, as expressed in a letter to "The Farmer's Advocate" bearing upon this point.

"In general, stone taken from a quarry will expand one-half upon being crushed; and when taken from a pile of rubble stone, will expand about one-third. This depends very largely, however, upon the way in which the stone has been piled. As with a wood pile, a great deal of skill can be developed in producing vacuum. The stone should be crushed to go through a 2-inch screen, and should have fine material, below one-eighth inch, removed.

"Sand should be essential in making concrete with crushed stone. Stone, sand and cement should ordinarily be mixed in the proportions of

six parts of stone, three parts of sand and one part of cement.

"The proportions will depend somewhat, however, on the quality of materials. A clean, sharp building sand should be used. If the sand is fine, proportions should be made one part of cement, two parts of sand and four parts of stone.

"If an especially water-tight and non-porous concrete is desired, there should be mixed with the cement before using about 10 per cent. of hydrated lime. This lime is manufactured at the Central Prison Farm, Guelph, Ont., and at a few other plants in Ontario."

THE DAIRY.

Clean Milk Production.

Editor "The Farmer's Advocate.":

In the matter of producing clean milk, it is not knowledge that we need, so much as it is the desire to do decently the things we already know. Everybody interested in cows is agreed that stables should be cleaned, windows swept down, manure taken from the gutters at least once each day, cows groomed free from manure, food always kept wholesome, and stale, unconsumed portions removed from the mangers. Good stable management consists in carrying out all these details, which are advisable in any well-conducted barn, without great expense. During the regular winter routine, these things are done reasonably well, but when the spring and summer seasons come on and every nerve is strained in planting, cultivating and harvesting the crops, the alleys go litter-covered, windows become opaque, manure accumulates in the gutters and a general air of neglect is apparent.

Everywhere in this work-a-day world, the ideal and practicable are far apart. It is easy to say that a thorough grooming is good for the cows, that it is an important thing to do if the best milk is to be made. But most of us will be doing pretty well if we can find time to brush the loose hairs from the udder and flanks and to pay a little special attention to any flecks of manure that may accumulate. A fraction of a minute per day per cow, spent in this work will keep a good many hairs out of the milk pail, and perhaps, from the layman's point of view, the number of cow hairs per pail is a better standard of purity, than the number of bacteria per c.c. Take the well-meaning and well-trained health expert, whose standards of cleanliness are laboratory ones, and whose principal opportunity is to become acquainted with dairy conditions through an occasional visit to some famous stable, that has been specially swept and garnished in honor of his coming. I wonder if he realizes the length of the milk route, from the udder to the breakfast table, and how many opportunities there are for accidental contamination by the way.

Fortunately, so long as cows are spending most of their time in pasture, grooming generally takes care of itself. The pasture bed is ordinarily clean, for the warm rains, sunshine and breezes are efficient cleaning agents. There is one kind of summer dirt, however, that is very objectionable. When pastures are so situated that the cows have access to muddy pools or swampy ponds, they will often stand up to their knees in water, switching their tails, fighting flies and plastering themselves with mud. The same thing takes place to less extent in wet weather in many barnyards. Of course this mud quickly dries and readily drops off into the milk pail, making a very finely divided, heavy dirt that passes through all ordinary strainers, and quickly sinks to the bottom of the can or bottle. Not only is this dirt but, moreover, dirt that seems to carry a very objectionable type of bacterial life.

Perhaps there is no one single factor that will do as much towards high-grade milk as the small-topped pail. Most of the dirt that gets into milk falls into it and hence the area of the top of the pail is a fairly direct measure of its cleanliness. The main objection to their use is that they are somewhat more difficult to keep clean and to handle than the open-topped pails, but they are one of the things that have come to stay. Let it be said emphatically that those contraptions where men milk into a strainer are a good deal worse than useless. The part of the dirt that is really bad washes through.

Of course, good, clean milk, means not only cleanliness in the stable, care in milking, but it means clean utensils as well, and no utensil is clean from a bacteriological standard until it has been actually boiled or well steamed with live steam. There is no more prolific source of trouble than a strainer cloth rinsed in warm water and hung over the fence to dry, but the same cloth boiled for a few minutes after washing is clean from the standpoint of the bacteriologist. There are a few fundamental principles in wash-

ing milk utensils. One is that alkalis and carbonates, like soda-lye and salsoda, are preferable to soap or soap powders for cleansing purposes. Salsoda dissolves coagulated casein and this gives it a special value for washing up old dirty cans. Still, pails and cans that are well cared for from day to day will not make any great demands upon washing powder.

All pails should be inverted while hot, after washing, and cans should be laid on their sides or inverted on a slatted rack. They certainly must not be closed tight. There are few worse smells than a fairly clean can that has been shut up tight until it has become musty. There should be no fairly clean cans. They should be clean. Separator parts, if laid on the shelf or hung up while still very hot, will usually dry very satisfactorily. Of course, if steam is not available, it is a difficult matter to do many of these things. A teakettle of boiling water is a "vain thing for safety" when it comes actually to sterilizing milk cans, and yet thousands of faithful farmwives are doing a pretty fair job with such primitive apparatus.

It is a platitude that the two great factors in making milk are "cleanliness and cold," and it might be added that the greatest of these is cold. By this I mean that there is no milk so clean and good, but that it will very rapidly spoil at high temperature, say at 65 degrees or above, though not so rapidly as if it were dirty in the beginning. On the other hand, quite inferior milk will keep in presentable condition for a long time if it can be kept below 45 degrees. In other words, spoiling is a matter of bacterial growth and bacterial growth is a matter of temperature. Fairly good milk below 55 degrees will keep fairly well, and above 65 degrees it changes fast. When we approach the temperature at which it is drawn from the cow it goes at geometrically accelerated speed. There is then one simple, unvarying rule: reduce the temperature of the milk immediately after milking as rapidly and as low as possible and do not allow it to warm up again.

Johnson Co., Ill.

W. H. UNDERWOOD.

Saving Condemned Milk for Feeding

It is the custom of officials in many cities to condemn milk because of the failure of the milk dealers to comply with certain temperature standards. Usually this milk is disposed of by emptying it into the gutter, though some attempts have been made to denature the milk by adding certain substances which would render it unfit for use in its fluid state. It is unfortunate that this milk, which is valuable for feeding farm animals, should be needlessly wasted. This loss can be prevented if the milk is returned to farms where it can be utilized for feeding live stock. Condemned milk could also be used in the city for making casein and for other purposes.

The Dairy Division of the Bureau of Animal Industry, United States Department of Agriculture, has recently conducted some experiments in order to devise some practical method of denaturing milk so that its sale as market milk may be prevented, and yet leave it in a condition suitable for feeding farm animals. The work thus far has proved that the use of a rennet solution is effective for this purpose, at the usual temperature at which milk is condemned.

In these experiments a 3 per cent water solution made from powdered rennet of a strength of 1 to 30,000 was used, and 40 cubic centimeters of this solution were added to 5-gallon cans of milk at different temperatures. The tests were made in a room where the temperature was 80° F., as that is about the temperature of the air in summer when most of the milk is condemned. In one test the rennet solution was added to a 5-gallon can of milk at a temperature of 50° F. In 1 hour and 15 minutes the milk was slightly thickened, its temperature then being 57°. Thirty minutes later the temperature had reached 59°, and a soft curd formed. An equal amount of milk at an initial temperature of 65° was treated at the same time. In 1 hour and 10 minutes the milk in this can was firmly coagulated, and it is probable that the rennet had produced the desired effect in much less time. At the end of this period the temperature had been raised only 1.2 degrees, or to 66.2° F.

In the light of these experiments it is believed that if a rennet solution of this strength is added to condemned market milk, satisfactory results can be secured under ordinary conditions without the disadvantages of the other methods which have been tried.

If a 3 per cent solution is made from rennet, strength of 1 to 30,000, about 2½ ounces (80 cubic centimeters) of this solution will be required for a 10-gallon can of milk at a temperature of 53° or higher. The cost of the material for this method of denaturing is very small, being only about three and one-third cents for a

10-gallon can when powdered rennet costs \$7 a pound.

It is recommended that those who contemplate using this method should test their solutions in the laboratory before using them in practice, so as to know definitely the strength of each solution prepared.

Babcock Testing.

Editor "The Farmer's Advocate":

Kindly give some help about cream testing. Have bought a Babcock and find cream bottles only marked to 30%. Instruction book says these are to be used with only half quantity cream, or with a 9 c.c. pipette or measure, but the pipette received is marked 10 c.c. Have tested two lots of cream, one to 35%, the other to 39% butter-fat. Now should I subtract one-ninth of this amount to allow for extra 1 c.c., in size of pipette? I am trying to find out what our butter maker is doing to me. Many of his patrons say he does not test fairly and I have good reason to believe they are right. His test for the first lot was 28%, and I will be surprised if his second lot goes over 30%. C. W. B.

Ans.—If the instructions received with the test state that 9 cubic centimeters are to be used for the sample then it is likely that the bottles are so graduated that with a 9 grms. charge, the percentage of fat may be read directly from the bottle. A 10 c.c. pipette should not be used, and for accurate results the sample should be weighed. Approximate results of the test by the use of the 10 c.c. pipette may be worked out as follows:

10 c.c. of cream tests 35%
1 c.c. of cream tests 35% divided by ten.
9 c.c. nine times 35% divided by ten=31.5%.
This is assuming that the bottles are graduated to give the percentage of fat direct, when a 9 gram charge is used.

F. H.

A 35-pound Cow.

Holstein-Friesian world records are recorded in dazzling succession. The greatest at time of going to press with this column, was that of Spring Farm Pontiac Lass, 106812, (aged five years, five months and twenty days,) which in seven days yielded 35.32 pounds of butter-fat or 44.15 pounds of butter as calculated on the 80 per cent basis, her milk production being 585.5 pounds testing 6.028 per cent fat. Her thirty days' official record was 172 pounds of butter, (80% basis,) or 137.6 pounds of butter-fat.

Spring Farm Pontiac Lass is evidently one of those wonderful cows capable of drawing to a great extent upon their stored up body fat, for the man who put her through the official test says she had lost four hundred pounds in weight—though whether this loss all occurred in thirty days, or whether the depletion extended over a somewhat longer period is not made clear. It is certainly hard to see how a cow could lose four hundred pounds in thirty days. Anyway there must have been a heavy draft upon stored-up tissue, which would account for the abnormally high test. Still the record is a great one, and Francis M. Jones, of Clinton, N. Y., who bred, raised and developed her is entitled to high encomiums. This young cow was sired by King of the Pontiacs and dropped by Tweede De Kol Lass, A. R. O. 34.81 lbs. She is nearly all black in color and is described as a low-set, wedge-shaped, extremely long cow, with a head of dairy type, large muzzle, open nostril, a powerful masticating jaw and prominent eye. As a milk-making machine she is a wonder.

HORTICULTURE.

Orchard Planting.

By Peter McArthur.

O for a scientist! Every walk in the orchard discovers a new trouble. The frost certainly killed all the earlier blossoms, for they are falling from the trees, stems and all. There is quite a sprinkling of late blossoms in most of the trees and the bees are busy among them, I am hopeful that we shall, at least, have eating apples next fall. But the two sprayings of kerosene emulsion failed to destroy the aphids. They are not so plentiful as they were, but there are still altogether too many of them. Here and there I find a blossom stem encrusted with them, and there is a scattering of them everywhere. Some orchardists were hopeful that the frost had killed them, but I do not think it has had much effect. This is a newly observed pest in this district, and from what I hear it is very prevalent. And now there seems to be something else the matter. A lot of the leaves are wrinkled on the tops, and puffy on the under side. In many cases they have separated into two layers. As this is something entirely new to me I am enclosing a couple of leaves to find

out what the editor has to say about them. Possibly their condition is due to the frost, which was certainly much more severe than most people think.

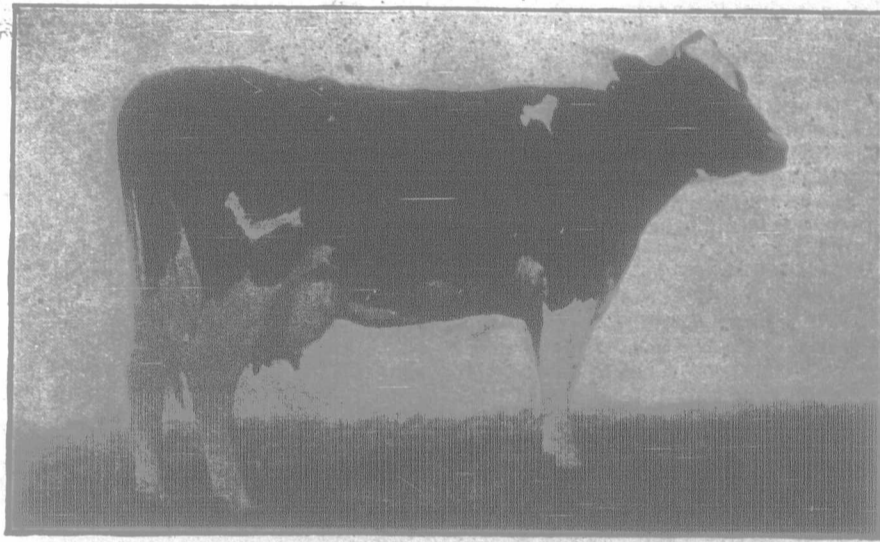
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If a man could only know as much before he starts a job as he does after it has been finished, work would be a great deal easier. I thought I had everything just right when starting to plant the new orchard, but I learned a few things. We planted cherry trees for fillers, and I thought it would be no trick to get them in right after the apple trees were planted. We made a fairly good job of planting the apple trees. Though the rows are not so straight that a rifle bullet would nick every one of them, they are not so bad. Here and there one may be out an inch or two, but the stretched and marked wire kept us fairly straight in spite of the rolling ground. It is only when you look across the field corner ways that you notice the little mistakes. But the great mistake was in imagining that if I got the apple trees in straight I would have no trouble putting in the fillers by sighting along the rows of apple trees. This had to be done by sighting along the rows that showed corner ways, and, as they revealed all the mistakes of the apple-tree planting, these mistakes were multiplied in planting the cherry trees. After the first couple of rows of fillers had been put in, I thought they would help me in sighting, but matters kept getting worse steadily. As Nature has not fitted me with enough eyes to enable me to sight in six different directions at once, the problem was too deep for

to give the young orchard every chance. If I rejected the trees a whole year would be lost, and the work would have to be done over again. The nurserymen promised me fair treatment if I would plant the trees, and now I am waiting to see the result. Though the trees were thoroughly soaked before planting, ten days ago, and have had two good showers of rain since they were planted, I cannot find a bud that has even swollen. If they do not grow it will mean a lot of wasted work.

* * * *

Almost all the fruit trees that came to this district this year, were in the hands of the railways for from one to two weeks. All the trees arrived in a dried-out condition, and some farmers refused to accept them. There is surely something wrong about this, but what is the remedy? The railways apparently do what they please, when they please, and how they please. I have had enough experience with them in the matter of giving signals at level crossings to know that they cannot be compelled to obey the law. In spite of the orders of the Railway Board, trains are passing every day without giving signals, and a few nights ago I saw an express train tearing along at full speed without a headlight and without ringing the bell or blowing the whistles. Apparently that is simply an indication of the regard they have for the rights of the people in all their transactions. Some time ago I saw a report furnished to the Railway Board in the case of a shipper who had missed the cattle market in Toronto, and had to feed his cattle for several days until the next market. The trouble was due to the fact that the local train on which he depended for the delivery of his cattle had to be held at various points to give the right of way to through specials. It does not seem right that local shippers should have their service disorganized on account of the through freight. I have been told that the delay in the delivery of fruit trees has been due to the same cause. The through freight on the railways passing through this section is so heavy that the local freight is of no importance in comparison, and it is largely left to take care of itself. As the taxpayers of the country have virtually paid for the building of the railways, it seems to me that they should have fairly decent service. It is a trifle hard to reconcile the fact that the railways are able to do what they like with the fact that we are all "sovereign voters." That phrase sounds fine at election time, but it does not seem to amount to very much between elections.



Spring Farm Pontiac Lass.
World's champion seven-day butter cow.

me. I know that we should have planted the fillers after each row of apple trees, and there were twenty-foot marks on the wire for that purpose, but nobody told me. When we found out it was too late to do things right, for the planted trees made it practically impossible to shift the wire for each row. So we put in the cherry trees as best we could, and I danced around like a hen on a hot griddle trying to sight in six different directions without delaying the work of planting. The result is not what you would call a fancy job of planting, but I have seen worse. In fact the trees are in better line than in most of the orchards I know of, but they should be right. Of course, the fillers will be cut out sometime in the future and the orchard will then look all right, but I shall have to wait a good many years before it looks as I should like to have it.

* * * *

Planting the young orchard was not the joyous job I had expected, for there was less hope in the work than I would have liked. The trees arrived in such condition that it seems hardly possible that even a decent percentage of them will live. The box in which they were packed was broken, most of the packing had fallen out, and they were as dry as last year's brush. They had been twelve days coming from Welland, and had been exposed to the hottest weather of the season. They might have been delivered with a wheel-barrow as quickly as they were delivered by the railways. People who saw them at the station advised me not to accept delivery, but I called up the nurseries and the manager asked me to try to save the trees. He advised soaking them over night, and then heeling them in a wet place. This was done, and with the help of two men who have had experience in planting we put in the trees according to the directions of the nurserymen. I was anxious to give the trees a chance, not only because I did not want to see so large a shipment destroyed, but because we have been preparing to plant this orchard for the past year. Last fall a 'clover sod was plowed under, and preparations made

FARM BULLETIN.

Inspection to Inspire Confidence.

Editor "The Farmer's Advocate":

During the last few years public attention has been largely directed to the question of Canadian banks and banking facilities. Mr. McLeod, late general manager of the Bank of Nova Scotia, led the way, and later, writers like Peter McArthur and some of our publications have taken the matter up. In the past the Canadian public has had the utmost confidence in the stability of the Canadian banks. The average citizen was absolutely sure that the Canadian banking system was the most perfect in the world: that depositors were absolutely safe, as they were guaranteed by the Government, and had a pity bordering on contempt for the systems of other countries, and especially that of the United States. In this belief he was confirmed by the Canadian press, by boards of trade and bankers generally, and citizens were assured that there was something mysterious and holy about banks and banking, which the ordinary mind could not compass, and should not attempt to enquire into. This feeling of security was so general and so strongly held that we have passed through several periods of extreme depressions, (and in the U. S. financial panic) with hardly a question as to the stability and security of our Canadian banks. During the last decade this feeling has been changed to one of apprehension, nervousness and doubt. Failure after failure of important banks has occurred, due, we are told, entire-

ly to mismanagement and dishonesty at the head offices. There is a growing feeling that large amounts of capital are being used in stock speculations, and that large corporations, directors and others, that are on friendly terms with the management, receive special favors that are denied the general public. Then it has finally filtered in to the consciousness of the average depositor that depositors are not safe, that they have no guarantee and that the old saying "As safe as the bank" is simply nonsense. With growing knowledge of the actual conditions the doubt and unrest becomes intensified, so that should a commercial panic set in we would undoubtedly have a general run on the banks from the depositors, the very people who have in the past been a tower of strength to the banks through their coolness and support in times of depression.

The whole business of the country rests on confidence and the restoration of public confidence in the banks can only be accomplished by strong radical measures. Tinkering with little amendments, shareholders' audit, etc., will never reassure the people. Give the country a Banking Commission of strong men like Mr. McLeod, and with power to control, not only to audit head offices, but to keep on safer lines, to favor the actual business of the country and to check the speculators, great or small, to see that a large percentage of capital is kept in reserve for times of stress, and other reforms that men of special knowledge and business capacity could suggest.

Carleton Co., Ont.

A. C.

Sudden Deaths of Young Cattle.

Dr. J. H. Tennent, one of the Dominion Veterinary inspectors, was recently called upon to make inquiry into the death of a valuable three-year-old heifer, just in milk, and two yearlings the property of Wm. Young, a Middlesex Co., Ont., farmer, after two or three days' illness. The animals had been running on pasture for a short time and showed no previous symptoms of ill-health, but went "off feed" suddenly with evidence of great distress, staggering in the walk, throwing up and turning the head, going round and round and then falling down heavily on their sides, expiring as in severe pain. Post mortem examination showed normal conditions with apparently nothing in the stomach. No poisonous weeds were observed on the pastures, but some musty fodder had been eaten before going out a couple of weeks previous. The symptoms were regarded as indicating meningitis but Dr. Tennent took samples of blood, brain and other organs for transmission to head quarters at Ottawa for further official examination, the case being such as to warrant thorough research. In this connection we find in the section devoted to veterinary medicine of the U. S. Experiment Station Record, just to hand, a report on "Forage poison in horses, cattle and mules, so-called cerebro-spinal meningitis and commonly called staggers," by R. Graham, of the Kentucky Station. The resume is as follows:

"An outbreak of forage poisoning traceable in a majority of cases to unsound corn, fodder, or fermented silage is said to have occurred in Kentucky during the fall and winter months of 1911-12. Horses were attacked more than cattle, and cattle were more susceptible than mules. The author states that the cause of the disease was so varying that it may be described as occurring in two and perhaps three types; the acute or rapidly fatal; the subacute, which generally ends in death; and the chronic or milder form from which the animal under proper care and treatment may recover. It was often observed in cattle that the first animal affected in the herd died much sooner than the animals subsequently attacked. Some animals made a complete recovery from a mild or chronic form of the disease only to succumb in a few days or a few weeks' time on a recontraction of the disease, showing that one attack confers no resistance to a second.

The acute form is said to be more prevalent than any other, especially in horses and mules. The animals so affected succumbing in from two to three days from the time the first clinical symptoms were manifested. Animals were frequently found dead in the morning that evidenced no symptoms of ill-health on the previous day. Horses were attacked at work in the field and died within a few hours. The symptoms in a majority of the acute cases were of from twelve to seventy-two hours standing, while symptoms of subacute cases were of from three to nine days duration. The symptoms of the chronic form are mild, such as loss of appetite, dullness, slight inco-ordination in walking, followed by recovery in two or three days.

"In response to a set of questions sent out to veterinarians in the State, reports were received of the deaths of 100 of 134 cows affected, 465 of 612 horses, and 99 of 115 mules. Bacteriological examinations of the brains of several horses and cows gave negative results.

Two veterinarians reported slight success in treating the disease by intravenous injections of a solution of potassium permanganate. The best method of combating it lies in prevention; moldy, improperly cured, fermented, or damaged feed should not be fed to animals. It is stated that at the Elmendorf farm, one of the largest stock farms in this country, where the damaged corn was floated and only sound corn fed, no cases appeared.

The National Record Board in Annual Meeting.

The annual meeting of the National Record Board, composed of representatives from the various Dominion Live Stock Associations, was held in the Prince George Hotel, Toronto, on May 23rd. A goodly number were on hand, including Wm. Smith, M.P., Columbus; Robt. Miller, Stouffville; John Bright, Dominion Live Stock Commissioner; R. J. Mackie, Oshawa; James Bowman, Guelph; T. A. Cox, Brantford; J. M. Gardhouse, Weston; Geo. Pepper, Toronto; John Gardhouse, Highfield; A. J. Dolson, Norval St.; Fred Richardson, Columbus; Robt. Graham, Bedford Park; John McKee, Norwich; W. A. Dryden, Brooklin; Peter Christie, Manchester; Peter White, Pembroke; B. A. Bull, Brampton; Col. D. McCrae, Guelph; Wm. Hendrie, Hamilton; W. W. Ballantyne, Stratford; Harry Smith, Hay; Jos. Brethour, Burford; K. Featherston, Streetsville; Geo. Douglas, Mitchell; R. H. Harding, Thorndale; L. J. C. Bull, Brampton; Victor Sylvestre, Clairvaux, Que.; Paul Tourigny, Victoriaville, Que.; J. A. Paquette, Que., and John W. Brant, Sec.

Wm. Smith, M. P., Chairman of the Record Board Committee, presided, and, in his opening remarks, referred to the past year as the brightest in the history of the Board. His address laid before the meeting three important questions, which were discussed at some length, viz., (1) a national or international winter show for Canada, (2) the report recently made to the Holstein-Friesian Association, re relative costs of operation in the National Records or separated from them, and (3) the so-called grievance of the Western breeders. With regard to this latter subject, he believed that the Board had been liberal with their money, and had the Western breeders used better judgment at election time, they might easily have had more representation on the Board. The agitation, he thought, is due to a few breeders, and is not supported by the majority. Of ten representatives on the Board from the West, only one was present at the meeting.

Robert Miller, discussing the report made by Jas. Rattie and D. C. Flatt, to the Holstein breeders, that it would be cheaper for them to remain aloof from the National Records, said that the National Records could not easily be found fault with. They are open to anyone to criticize if they are faulty, and the fact that all breed societies now included are perfectly satisfied, is very good proof of the value of the Records. He believed that the cost of the work of putting out the pedigrees of Holsteins is much less than for Shorthorns, as the sire and dam only are given in the former, while the pedigree is given in full on the dam's side in the latter. The report made by Messrs Flatt and Rattie was believed to be unfair, and an invitation had been extended to an interested person to go to Ottawa and examine the workings of the Record office to substantiate or disprove the report, but so far he had declined. It was estimated that clerical work of operating the Holstein Association could be done in the Record office for about \$2,600, one-half of which, or \$1,300, would be borne by the Association, and it was his belief that this was much cheaper than the work is being done under present conditions. He believed that if a thorough investigation were made, it would show an advantage on the side of the National Records.

Peter White took up the question which is agitating the minds of some Western breeders. The Record Board had been criticized with regard to the representation on it, something over which the Board has absolutely no control, the constitution as now standing composing the Board of members elected by the various Breed Associations. He believed that the Western breeders had been generously dealt with, and that their desire to force the Minister to change the constitution to work automatically should not be taken seriously. He also believed that geographical position does not count, and that men should be the standard—not place of residence. If their demands were granted, fees could be manipulated and representatives might get on the Board with no more interest in the breed they represented further than to satisfy the selfishness of some friend. The shoe is not all on one foot. Under the proposed regulations, in some respects, the Western Provinces would be worse off than now, and a complete statement of grants showed that, in many cases, they now have the best of the deal. He referred

to the Percheron and Suffolk horse societies and to the Aberdeen-Angus cattle association, all of which get much larger grants out West and have an extremely large proportion of their Board membership in the West. Mr. White suggested that the East and West should meet to work out the scheme.

In reference to passenger rates to annual meetings, Robt. Miller pointed out that breeders could come East at rates very little over half fare on excursions which run nearly every week during the winter.

James Bowman, who has had considerable experience in the West, expressed the opinion that the "kick" is only coming from a few, and is quite local in effect.

The subject of an International Winter Show was introduced by Geo. Pepper, who placed his ideas in the form of a lengthy resolution, "that we respectfully request the Minister of Agriculture, Mr. Burrell, to appropriate the sum of \$100,000 per year for ten years for the purpose of establishing a Canadian National Winter Live Stock Show, embracing all kinds of live stock, seeds, fruit and flowers and poultry.

"That the Executive be composed of the Dominion Minister of Agriculture or Live Stock Commissioner, who shall be the President or Chairman, and twenty-four members to be elected as follows: The Live Stock Commissioner from each province with one other member appointed by the Minister of Agriculture in each province, and six members appointed by the Dominion Minister of Agriculture. The Executive shall have charge of the entire management of the show, taking all receipts and paying all expenses, including the expense of transportation of all exhibits.

"They shall allot to the association and breed organizations interested a sufficient sum to pay premiums, but the management of all matters pertaining to the prize list, awarding the prizes, etc., in connection with the different organized associations shall be in the hands of the Directors of their respective associations. Only in case of dispute or necessity shall the Executive interfere with the conduct of the competition of any of the departments. This Committee shall, when organized, locate the show where it will be most convenient for all Canadians, and where the best accommodation and consideration can be obtained."

A Committee was nominated in the resolution to interview the Minister of Agriculture, but the resolution as worded was open to some criticism, and after considerable discussion Peter White changed the wording to the following, which was carried unanimously. "This Board is unanimously of the opinion that the time has arrived for the holding of a truly national agricultural show, including live stock, seeds, poultry, etc., and organized on broad national lines, and having a Board truly representative covering every Dominion agricultural interest, and that a committee composed of the National Live Stock Record Committee and Victor Sylvestre, W. F. Stephen, Senator Talbot, W. H. Sharpe, M. P., John Gardhouse, Col. McEwen, Wm. Ballantyne, R. Graham and Geo. Pepper be appointed, and the Chairman of the Record Board interview the Minister of Agriculture and arrange for a meeting.

The new officers elected were: Hon. Pres., A. W. Smith, Manle Lodge; Pres., Wm. Smith, M. P. Representing heavy horses, Peter White; light horses, Hon. N. Garneau; beef cattle, Robt. Miller; dairy cattle, W. F. Stephen; sheep, J. M. Gardhouse; swine, J. E. Brethour.

The report of the Record Committee to the Board showed all the affairs of the Association to be in a satisfactory state.

Federal Aid Asked.

President R. J. Fleming, of the Toronto Winter Fair Association, Mayor Hocken and Controller Foster waited on the Dominion Minister of Agriculture, last week, asking Federal support towards the establishment of an annual national winter fair in Toronto. A sympathetic hearing was given and the matter will be considered by the Cabinet. No grant, however, will be available this season, but may be forthcoming for an exhibition in 1915.

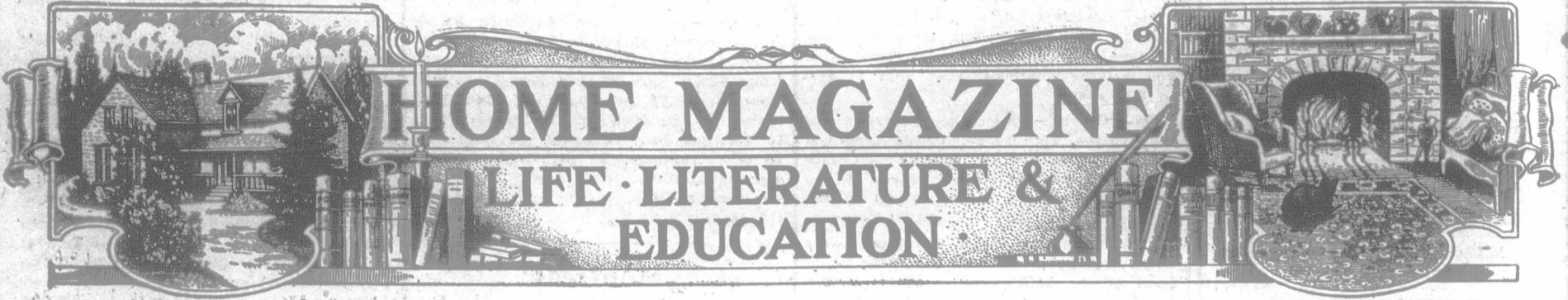
Editor "The Farmer's Advocate.":

Your attitude in regard to the revision of the Bank Act cannot be too highly commended. If only the farmers would stand together on questions of superior importance instead of dividing themselves in party camps, what a change for the better would await us! May your seed bear its fruits, the earlier the better.

Prescott Co., Ont.

F. A. SENECA.

Results of over seven hundred complete analyses of oat kernels made in Britain during several years seem to indicate that the variation of the principal constituents of the oat kernel is greater than usually supposed.



The Pace and the Toll.

(By The Spartan.)

"Americans are the fastest-living nation on the earth. They are fast becoming a Southern people!" Such was the reflection of an artist who has lately returned from Europe, where ample opportunity was afforded for contemplation and comparison. "The Southern races have reached glorious climaxes, but invariably they have suddenly crashed to ruin."

The statements call up rather a tragic picture, but are they not after all suggestive of a very great and dangerous truth? Haste, turmoil, strenuousness, death-or-glory competition bristle forth everywhere in America. Perhaps we do not like war. Nevertheless, we prefer slaughter to slowness. Railroads kill thousands; automobiles mangle almost equal numbers.

Such madness for speed, such lust for record-breaking in everything, is the first cousin of the madness of insanity, and near kin to the insatiable thirst for excitement of the tottering Rome in the days of the Empire.

Is there any good reason why we should keep the poor, law-loving body charged to the bursting-point with dynamics? Need twentieth-century life be made a perpetual cavalry charge? And is the span of life so intolerably long that we must burn out the fires that maintain it by the very quickest and most spectacular means?

Facing these questions, moreover, stand the unquestionable facts that the great and lasting works of mankind are not reeled off a la hundred-yard-dash, nor yet trailed from the tail-end of a Bleriot aeroplane. No; they are worked out in perfect self-control and deliberation. They require the leavening influence of the days, and months, and years. Life in America need not be reduced to the basis of a quick-lunch counter, with a Beelzebub of unrest wielding an indiscriminate lash.

"A Southern people!" That is it,—nimble of foot, nerves a-tingle, aspiration hot and ceaseless even though in the attitude of calmness, passions too often on the raw edge, the meaning of rest and relaxation buried with the remotest Greek mythology.

In this idea of rest and relaxation we are more criminally careless than Southern races, indeed. For the Latin people love their siestas. Strange, isn't it?—when by all means they should be braying away on Wall street with eye single to the almighty dollar.

"The fastest-living nation on earth." If this is the case, we must pay for it. Swift transportation of all kinds comes high nowadays. If our competence in life is snatched with the greedy haste of a nomad, that competence is going to be discounted by a rival nomad,—or we might call her a rival Amazon—Dame Nature!

Yes, we can hurry in this twentieth century. Only one force in creation can beat the pace we set,—that vigilant, lightning-eyed Amazon. She will be on hand to do the discounting. We name the speed. She collects the fare.

And of her exactions these are a few,—nervous wrecks in countless thousands, cases of heart-failure with every tolling of an hour, asylums filled to the shingles, premature deaths more numerous than the sands of the Sahara. We hope the figures are exaggerated, but it is time to see the danger at all events.

And what of the opposing ideas, rest and relaxation? "Sleep that knits up the ravelled sleeve of care"—this is rest literally—and eight hours of the said knitting are none too many for the enormous "unravelling" of "sleeves" that most of us do during the other sixteen

hours. Let us further apply a more homely and more exacting rule.—Let the knitting commence at 10 p. m. There seems to be nothing in all science to give a reason, but nevertheless these hours before midnight are one of the most indefinitely-precious gifts Nature has in her whole store-house. Comic opera, and bridge, and Italian waltzes, may be preferable, but again Nature never fails to be at the vestibule with wide-open eyes and a toll-box. Rest, then, and rest literally. The "brain and brawn" that built up North America was nursed to maturity largely by these very sleeping-hours, or we should not possess so much of it to squander to-day.

And in the wakeful hours—relaxation! This need not be physical inertia. Do a day's work, not in fevered spasms, but with deliberate method! Half of the sixteen hours ought to be enough,—then relax. This is possible in many and pleasant ways. It need not be ascetic in the least. Poetry can be relaxation, and good prose, so with the piano and the world of song. Indeed, a painter's pastel and brush may take jaded nerves to Lotus-fields that are nearer than they seem, while that much-neglected art of conversation is a kindred helper.

Tempus fugit! and so do some of the aeroplanes. Nevertheless, if man had not been intended to rest and relax, creation wouldn't have included that precious pulling down of the blinds with each revolution of the haste-beridden old earth, and man would probably have been made with dynamos in his epidermis, winged, and shod with seven-leagued boots.

Letters from Abroad.

BY MEDITERRANEAN SHORES.

XI.

Rome, April 21, 1913.

My dear Jean,—To-day, Rome is celebrating her 2666th birthday. (Quite an elderly lady, isn't she?) Flags are flying from all the seven hills; bands are playing in the piazzas and parks, and "pa" and "ma" and all the children are out for a holiday. Just 2666 years ago to-day, the mythical Romulus is said to have ploughed the furrow around the Palatine Hill, where the first wall of Rome was built, and now scientists, historians, antiquarians, and excavators, are feverishly trying to locate the exact place.

Rome is so overpoweringly historic that it is almost depressing. You feel as if you were wading through centuries of ghosts, and every stone you look at seems to have a prehistoric air about it that makes you feel as new as a mushroom. I think the history of Rome is red with blood, and based on massacres and martyrdoms. Some of the galleries are lined with pictures of gory scenes of past days—innocent people being butchered on the streets by brutal soldiers; men being burned at the stake; hacked to death with knives; torn to pieces by ferocious beasts; singed with red-hot irons, and being tortured to death in every horrible way conceivable. It fairly makes one squirm to walk past these blood-spattered canvases.

We have been doing considerable sight-seeing since we came here, and do not feel such a vivid green as we did at first. I often wish one could take hypodermic injections of history just before starting out to visit monuments of past ages. It would be so much easier than digging small-type facts out of Bedeker, because, for some inscrutable reason, you can never find the right page when you are in front of the object you wish

to read about. There is a sad story told of one earnest student who systematically "did" every room in a certain museum according to his guidebook, and when he had finished, discovered, to his horror and dismay, that he had made the awful mistake of starting on the wrong side of the building, and taken the last room first.

We are very pleasantly located here in a pension on the slope of the Pincian hill. Our suite opens on a balcony purple with wistaria, which overlooks a charming Italian garden with a rose-covered pergola down the center leading to a quaint fountain in the wall. Prim little paths, guarded by white statues of ancient Romans, intersect the garden. I am not acquainted with any of these ancient except Nero, that imperial lunatic who fiddled while Rome burned. We have our afternoon tea in the garden under the lemon trees, and it is really quite delightful except for the baneful presence of the aforesaid Nero. We are within a stone's throw of the Piazza di Spagna, which is the center of foreign life in Rome. It really looks more like a slice of England than a bit of Italy. The street signs are mostly English; there are English libraries; English tea-rooms; English chemists, and other shops of all kinds, and a big department store called "Old England." Nearly every person you meet on the piazza is speaking English. I haven't heard so much of my native language any place else in Europe. It makes one feel quite at home to see so many English signs on the street, but I must confess I was startled one day when I was suddenly confronted with this: "Presbyterian Church." I had a sort of queer, Sundayish feeling come over me, which carried me back to those by-gone Sundays on Uncle John's farm. I felt real good and pious for a few minutes.

Apropos of churches, I just want to tell you that there are over four hundred of them in Rome. The amount of wealth lavished upon the interiors is something fabulous. They are perfect museums of art, but colder than Greenland. For that reason we do not linger long in any of them. We have adopted the plan of peeping into every one we pass, although sometimes, if the temperature is not too arctic, we stay for a service. One afternoon when we were out walking we went into fifteen churches. That is our highest record. It was on that particular afternoon that Miss Morris distinguished (or extinguished) herself. She wanted to know the name of the church we were about to enter, and calmly approached an elderly Italian gentleman who was standing by the door and questioned him in her best Italian. I may say confidentially that her Italian has marked peculiarities, and is confined to a few words and phrases which are sometimes not understood by anyone but herself.

"Quanto nova?" said she to the man, under the impression that she was asking the name of the church.

The man looked at her blankly.

"Quanto nova?" she repeated, pointing to the church.

"Non capisco" (I don't understand), said the man, and then added in very good English, "I know not about eggs."

"Eggs!" she exclaimed, in surprise.

"Si, si, madame. You ask about eggs."

"No, no! I asked the name of the church."

"Ah!" he said, smiling amusedly.

"I understand—you make one little mistake, madame. You say nova (eggs), instead of Duoma (church), and, of course, I am very astonished."

I have been studying Italian a little myself, but must say that I find the

coat-tail method much easier to acquire than the oral. It is very simple. All you have to do is to pull the coat-tail of the driver and point in the direction you wish to go, and when you reach the desired spot, pull his coat-tail again and he stops the carriage.

While I am on the subject of churches (and you can't get away from them in Rome), I would like to tell you about the Church of the Capuchins here. It is very much visited by tourists because of the curious anatomical display in the crypt. There are four large rooms there, each one ornamented with fantastic wall and ceiling decorations made with the bones of departed monks of the order. The monks were buried at first in the plot of earth brought from Jerusalem, which occupies the middle of each room, but the space was limited, and in time became so crowded that there was no room for the new arrivals, so to speak. So, thousands of the oldest inhabitants of the consecrated ground were exhumed, their bones sorted out, and used for mural decorations. Quite an ingenious idea, wasn't it? Some of the results are very curious. In one room there is an altar of skulls, before which is suspended a hanging lamp of assorted bones. In the walls are niches, and in each one is a skeletonized Capuchin monk in a dusty, brown robe, and ancient rosary.

The Capuchin art craze seems to have taken the peculiar form of hideous mortuary exhibits. This one was less nauseating than the one in the catacombs at Palermo. It seems very strange that the monk who conducts you to these gruesome places is invariably big and fat, and healthy-looking. Can it be that plump guides are selected with the special idea of emphasizing the contrast between the living and the dead?

When we first came to Rome we patronized the street-cars extensively in our daily peregrinations, but one day when we were in a great hurry to get some place, and all the cars were packed, someone suggested taking a cab. Harmony demurred at first, and said she was under the impression that cabs, like matrimony, should not be entered into lightly or unadvisedly. We debated the question, and concluded it might be more expensive, but would save time, and time was precious. So we all piled into a taxi, and when we reached our destination it registered just one lire (20 cents). Since then we have abandoned cars and taken to cabs. It is much more interesting as you drive through all sorts of curious little back streets, and see more of the native life of the city.

One of the most charming things about Rome is the fountains. They are of every size, variety, and age. Every piazza has its fountain. One of the most famous is the Trevi. Into its broad basin many pennies are thrown by enthusiastic tourists, because there is a legend that if you drop a penny into the Fountain of Trevi, you will be sure to return to Rome. The small boys in the neighborhood are good divers, and the money does not stay long under water. There is a saying that in Rome one is never out of the sight of a church, or out of the sound of running water, and I really believe it is true.

Several times a week we go up on the Pincian hill in the afternoon to see the view, and the people, and hear the band play. From the terrace one looks down on hundreds of roof-gardens, and away across the housetops to the big dome of St. Peter's, behind which the sun goes down. Here and there beyond the roofs one gets glimpses of the Campagna, looking like a great gray sea. The late afternoon is very gay on the Pincio.

fashionable Rome comes in carriages, and visits are made from one carriage to another. There is a great crowd of people promenading under the trees, and on the terrace, and gathered around the Kiosk where the band plays.

The scene is very much enlivened by strolling groups of students with gay-colored gowns and caps. These students are all young priests from the College of Propaganda in Rome—a tremendously large, wealthy, and powerful institution, with thousands of pupils in attendance. The color of the gown varies according to the seminary to which the students belong. The Austrians are the most conspicuous, and can be seen from afar off, as their robes are bright scarlet. They have been nicknamed the "boiled prawns." They certainly do add to the brilliancy of the Pincio as they promenade under the shade of the dark ilex trees.

Artists fairly haunt the Pincio at sunset-time, and the Via Sistina which leads to it is banked on both sides with the results. You can buy a gorgeous "Sunset from the Pincio," in any color or size you like. It is one of the popular pictures of Rome which postal-card fiends buy by the dozen and send back to America to their left-behind friends and relations.

I was so delighted to hear that you and Jack were thinking of coming to Europe this summer. Please don't take it all out in thinking, but buy your tickets and start—and start soon. I'm just crazy to see you both again, and awfully anxious to hear Jack orate on Woman Suffrage. He used to be violently opposed to it, you know, but that was before he knew much about the subject. I expect to make a thorough convert of him yet.

Good-bye—and get your tickets soon.
LAURA.

The New Public Health.

The Farmer's Advocate Bureau of Public Health Information.

QUESTIONS, ANSWERS, AND COMMENTS.

Conducted by Institute of Public Health, London, Ont.

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

PATENT MEDICINES.

1. How is a layman to distinguish between patent medicines that are as represented, and those that are fakes? I understand doctors use proprietary medicines.

E. B.

Ans.—Patent medicines are not made better or worse in their action on the body by the patenting process. By this I mean that a spoonful of a patent medicine containing such and such, and a spoonful of a non-patented prescription containing the same things in the same proportions, would have just the same, as much, or as little, effect.

The objections to patent medicines are that their use is based on a total misconception of every fact connected with disease, except the fact that people who are, or think themselves, sick, demand some kind of "cure," and are ready to try anything that they can be persuaded to think may have an effect. A great many people seem to believe that there is a lung disease, a kidney disease, a

liver complaint, etc. They say "he has the fever; or "the constipation." There are simply hundreds of totally different common disease: at least five kinds of pneumonia, perhaps thirty kinds of colds, eight or ten kinds of kidney disease, etc., and all have various degrees of severity; moreover the body compensates more or less for all defects or shortcomings which the organs suffer; if it did not, almost every disease would be immediately fatal. Fancy the reckless ignorance of the innocent who goes to the store and buys some patent medicine because he thinks he has kidney disease.(!) How does he know his kidneys are affected at all? If so, how can he tell which of a dozen different things his kidneys are suffering from? If he knew this also, above all how does he know what the cause is? If he does not know the cause, how can he guess at how to remove the cause?

So little do the public know about symptoms of disease that it is very nearly always true that no person really suffers from the disease he himself thinks he has, unless it be a toothache or a corn or something like that, and even then he very rarely knows the cause or what to do for it.

Suppose the kitchen clock is losing time or striking wrong; suppose without having it examined to find out why, you reach into your tool chest in the dark, pull out any tool that your hand catches hold of, thrust that tool into the clock works, and stir it round and round! There you have an exact representation of what the average citizen does when he buys patent medicines for diseases he thinks he has. Sometimes he has nothing wrong with him at all; almost always it is something quite different from what he thinks is wrong.

Now, in this illustration you selected the tool at random and used it at

random, but at least you would know what tool it was you had, screw-driver, plane, saw, or hammer, etc., and even though you used it foolishly on the clock, still you had some idea of what the proper use of that particular tool would be.

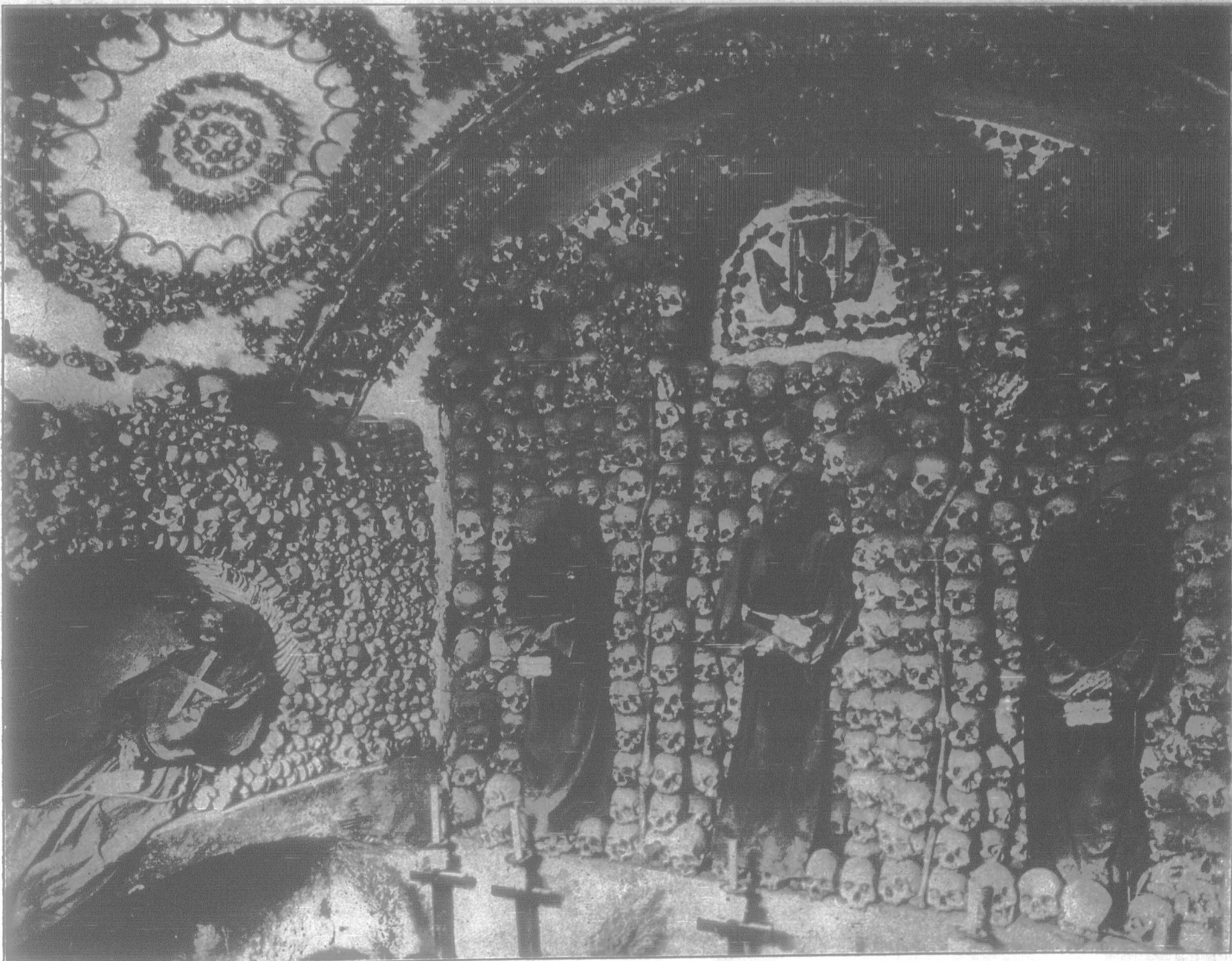
But in buying patent medicines, you do not even know what you are buying, and if you did know, you have not the least idea what its use is or how or when to use it.

You say, the directions on the bottle tell how to use it. True, but the only directions that are on the bottle "boil down" to this—"push it into your works, and let it rip!"

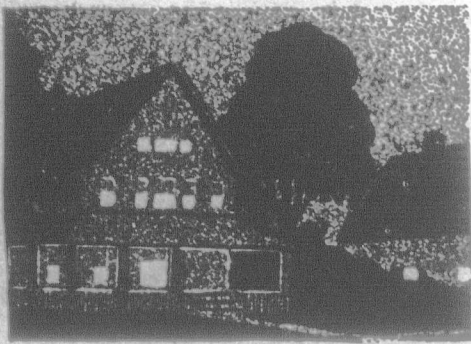
You would not buy a jack-knife or a hat without knowing a little something about it. You would not plough half an acre without some idea of why you plough, or what the effect will be. But because you do not know anything of disease, you will buy something you know nothing of, to mix in with the troubles you already have!

Proprietary medicines possess this difference from patent medicines; the physician is informed what drugs, and how much are in them; he is supposed to know how those drugs act; finally and most important, he knows, or if he doesn't, he ought to know, what is really the matter with the patient, and what action from what drug may affect the disease favorably.

But with all these important advantages which the physician has over the average citizen, in using proprietary drugs, still it is risky, for how is the physician to know that the proprietary medicine really contains the drugs that it is said to contain? Or that the amounts of each drug really are as stated? Or that the combination will really do what the proprietors claim? Proprietary medicines, even when used



Capuchin Cemetery, Rome.



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by physicians, are really "second-hand medicines," and the best physicians generally do not use any but the simplest kinds, and for the simplest purposes.

If you have understood what is here written, you will see that it is not up to the layman to distinguish between good and bad patent medicines. If the layman wants to treat disease at all, he should study disease and remember "a little knowledge" is the most dangerous thing in dealing with health and life.
H. W. HILL.

COMMON DRINKING CUPS, ETC.

2. We are constantly being warned against using common drinking cups, towels, etc., in hotels and railway trains. It seems to me that this is a kind of fad among doctors, and that the dangers are but slight after all. If I am wrong in this I should like some substantial reason for being otherwise.

Ans.—You are partly right. The roller towel, the common traveller's drinking cup, etc., in railway trains, hotels, etc., probably do less harm on the whole than they do in school and at home.

To understand this, it must be remembered that every year we have a certain number of cases of measles, so many of tuberculosis, so many of this and that. The only way to find out whether one means of spreading disease is more or less harmful than another method, would be to trace how each case of measles, tuberculosis, etc., is contracted; and tabulate the results.

Of course, this has never been done with a sufficiently large number of cases to give conclusive rules; but I was able, in the case of typhoid fever in Minnesota, to conclude that 10,000 cases of typhoid fever occurring in that state annually arose thus: about one-third of all, (i. e., about 3,300) came from drinking water into which had entered the discharges of the bladder or bowel of typhoid patients; about one-third came from eating food or drinking milk on which or into which flies had carried bowel discharges from non-fly-proof toilets, used by typhoid infected persons; about one-third came through food or milk or towels or cups, etc., handled by persons who had on their hands the discharges of the bowel or bladder of typhoid-infected persons.

The diseases conveyed by roller towels may be any of those which can be contracted from the discharges of the patient; hence practically any of the infectious diseases of this part of the world, from syphilis and tuberculosis to chickenpox and German measles. But they are transferred chiefly, not by washed hands wiped upon the towel, but by half-washed hands wiped upon the towel; and by the habit of wiping the lips, not by wiping the face on the towel.

In hotels, etc., transients use the towels for a day and pass on. Hence the chance of any one transient using exactly the same spot on a towel that another infective transient has used, is not so very great. In schools or households, however, if every member uses the common towel, every day, it is almost inevitable that sooner or later, every member should receive infection from any one other infected member, and perhaps not once but many times; thus the chances are greatly multiplied.
H. W. HILL.

MOSQUITOES AND DISEASE.

I have heard that mosquitoes carry certain disease in tropical countries. Do mosquitoes in this climate also carry diseases? What precautions can be taken to get rid of mosquitoes?

ENQUIRER.

Ans.—Mosquitoes are known to carry certain diseases, not by mere transfer of the germ as a needle thrust into one person might carry germs in the blood to a second person into whom the needle was also thrust, but by the germ in a certain stage taken into the mosquito's body from one person, then developed in the mosquito's body to another stage, and then passed out to another person. In brief, the mosquito, in these diseases acts, not as a mere mechanical conveyor, as flies act in carrying typhoid fever, but as a peculiar specialized incubator. So delicate a process is the incubation and so specialized must the incubator be, that not only is a mosquito alone capable of it,

but there is required a different kind of mosquito for each kind of disease germ. The ordinary mosquito cannot carry malaria or yellow fever; the yellow fever mosquito cannot carry malaria; the malaria mosquito cannot carry yellow fever, and so on. Nor can any mosquito convey any of these diseases unless he (or rather she—only the females do it) first secures the germ from a person who has the disease.

In this part of the world (Ontario) malaria mosquitoes exist; I have myself seen and caught them here. But the malarial germ does not flourish here and rarely occurs, except in the bodies of persons who contracted the disease elsewhere. So the malaria mosquito here seldom has a chance to secure the germ, bite she ever so many people.

The ordinary mosquito, like any other biting animal, from a lion down to a mouse, or any other biting insect or even a needle or a pin, may carry other disease germs from one person to another, purely mechanically. Occasional cases of blood poisoning, from ordinary mosquito bites, as well as from rat bites, or the bites of the ordinary non-poisonous snake, are thus produced. Occasionally it may even be that the germs of blood poisoning are on the skin of the person already, and the bite merely makes a hole for it to enter by.

To get rid of mosquitoes:

1. Get rid of or spoil their breeding places, i. e., protected water, such as swampy spots, old tomato cans half full of rain, rain barrels, choked-up eaves troughs, shallow ornamental ponds; etc., etc. This is best done by draining what can be drained; screening anything like a rain barrel which you wish to keep; putting fish into ornamental water to eat the eggs and larvae; or oiling swamps which cannot be drained with light fuel oil, spraying once a week or once in two weeks, as may be needed, one ounce per sixteen square feet of swamp. The oil can be used on a rain barrel, and if the water be drawn off carefully below the oil, it may not be objectionable for ordinary purposes.

Dragon flies are said to kill adult mosquitoes; probably birds and bats also kill a great many.

Mosquitoes are much easier to get rid of than flies, for flies need dampness only, while mosquitoes must have actual collections of water in which to breed.

Mosquitoes do not breed in long grass or amongst dense foliage unless there are actual collections of water somewhere therein, but they will breed in the water collected in the pitcher plants, or even in a cow-track.

ANNOUNCEMENT.

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

Hope's Quiet Hour.

A Peep at Palestine.

Those of you who have read last week's "Quiet Hour," describing the Palestine Exhibition in Toronto, may be interested in a few more facts about the Holy Land which I gleaned there yesterday. The Bible was written by men familiar with Oriental customs, and some of its allusions are puzzling to us until they have been explained by those who are also familiar with Oriental manners and habits.

In the first place we are amazed by the astounding fact that men and women in Palestine live, dress, and act very much as they did three or four thousand years ago. It seems as if a miracle had been wrought, on purpose to allow earnest Bible students the opportunity of studying for themselves the way people lived in the days of Abraham, and in the time when our Lord walked visibly on this earth. It is important for us all to realize that our hope for this world and for the great Hereafter is not depending on beautiful theories, but on literal fact. I once showed to a young girl the location of the Lake of Galilee

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There is no knack or secret about using Diamond Dyes. Don't say, "Oh, I am not clever enough to work such wonders." Thousands of twelve-year-old girls use Diamond Dyes.

With these wonderful first aids to fashion, you can easily make your clothes constantly beautiful. Also, you can give new life and color to your curtains, rugs, portieres, etc., and your faces and trimmings can be used over and over again, through the magic of

Diamond Dyes

Buy a package of Diamond Dyes to-day. It will cost but 10c at any drug store. Tell the druggist what kind of goods you wish to dye. Read the simple directions on the envelope. Follow them and you need not fear to recolor any fabric. There are two classes of Diamond Dyes—one for Wool or Silk, the other for Cotton, Linen, or Mixed Goods. Diamond Dyes for Wool or Silk come in Blue envelopes. Diamond Dyes for Cotton, Linen, or Mixed Goods come in White envelopes.

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Our experience of over thirty years has proven that no one dye will successfully color every fabric.

There are two classes of fabrics—animal fibre fabrics and vegetable fibre fabrics. Wool and Silk are animal fibre fabrics. Cotton and Linen are vegetable fibre fabrics. "Union" or "Mixed" goods are 60% to 80% Cotton—so must be treated as vegetable fibre fabrics.

Vegetable fibres require one class of dye, and animal fibres another and radically different class of dye. As proof—we call attention to the fact that manufacturers of woolen goods use one class of dye, while manufacturers of cotton goods use an entirely different class of dye.



Yellow messaline dyed brown

Do Not Be Deceived

For these reasons we manufacture one class of Diamond Dyes for coloring Cotton, Linen, or Mixed Goods, and another class of Diamond Dyes for coloring Wool or Silk, so that you may obtain the very best results on EVERY fabric.

REMEMBER: To get the best possible results in coloring Cotton, Linen, or Mixed Goods, use the Diamond Dyes manufactured especially for Cotton, Linen, or Mixed Goods.

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Diamond Dyes are sold at the uniform price of 10c per package.

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For wholesome, *digestible* "eats"
— give us PIE.

At its very *best* wrapped in a FIVE ROSES crust.

Upsets Pie Prejudice *without* upsetting the Eater's Insides—FIVE ROSES flour.

Great for Pie Crust—top and bottom.

And Puff Paste and *Difficult* Things.

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Flaky, too, and crinkly—crisp yet *tender*.

Put into *your* bake things the rare nutlike sweetness of *Manitoba* wheat kernels.

All sippy with the rich red juice of the cherry—or lemon pie—or apple—or healthy custard—meat, may be, or mince—

Put the FIVE ROSES "crust end" about 'em.

See the hungry wedges fade hobnob busy with tooth.

At Pie Time—

Use FIVE ROSES.

Five Roses Flour

Not Bleached



Not Blended

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on a map in her geography. When I said: "It was there that Christ stilled the storm of wind," she seemed greatly surprised.

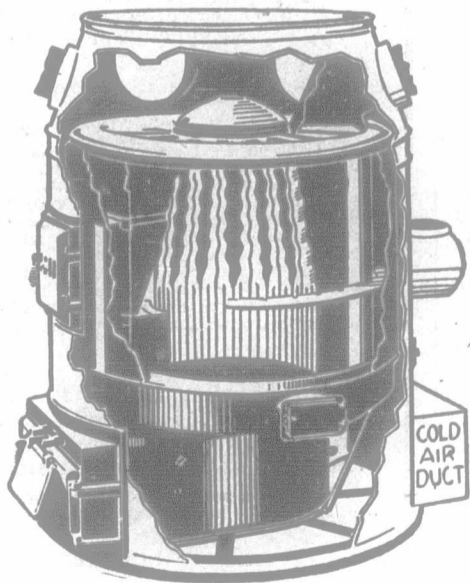
"Why, He did not really live in this world, did He?" she asked. Yet she had been familiar with the Bible stories from babyhood. It is hard for us all to grasp the fact that the Incarnate God lived in a carpenter's poor home for years, was probably called familiarly by the Name which is so sacred to us now, was looked down upon by neighbors who thought themselves above Him, and sold for a trifling sum of money the rude ploughs, cradles, and yokes, which His own work-hardened hands had made. We think of the countless churches, hospitals, schools, orphanages, etc., erected to the glory of His Name—nearly 2,000 years after His death. We think of the millions of men and women who count it their highest privilege to live for Him; and we echo wonderingly the question which was a taunt and has now become the miracle of the ages—"Is not this the Carpenter?" Let those who doubt or deny the Truth of His Divine claims explain, if they can, the FACT that the Name of JESUS is as much greater than any other name as the light of the sun is greater than the swiftly-passing light of a candle. Nazareth has had many "poor carpenters," but the Name of One alone is revered and adored. Many men have died on the cross, but because One Man died there, the cross stands like a banner on the highest peak of the grandest cathedrals, the point of honor in the proudest cities of the world. Unless JESUS be what He claims to be—the Light and King of the whole world—how is it that He brings light to every individual and every nation that really obeys His commands?

Let us look for a few moments at an Easter market-place. Here the people

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are gathered to transact every kind of business, and to discuss the news of the day. Here the judge administers justice, and laborers stand waiting to be hired—as our Lord mentions in one of His parables. Here the minstrels play on their noisy musical instruments, sing, and improvise stories for the pleasure of an emotional and interested crowd. When the song is very lively, the listeners often begin to dance; when it is very mournful the tears will roll down their cheeks. The minstrel is gratified with these outward signs of the power of his music. Our Lord said sadly of His people, that when John the Baptist tried to arouse them to tears of repentance, they did not lament; when He proclaimed the good tidings of God's love and redemption, they did not dance for joy.—St. Matt. xi.: 16-19. Is it not still much the same? The awful announcement of God's hatred of sin, and of the certainty of death and judgment, is unheeded by the crowd of people who are interested only in present gain and enjoyment. The good tidings of God's wonderful love to each of His children is received without any sign of rejoicing. It is an old story, and people are not vitally interested. They say—in action if not actually in words—"Yes, I know it, hold ye your peace." The minstrel in the Oriental market can always win the attention of a group of listeners by telling them a story; so our Lord—following the custom of His people—spoke in parables, in order to win a hearing and fix the hidden lesson in their memory. Some heard only the interesting "story," but others perceived and pondered the meaning of the parable.

But another voice rings through the market-place where we are standing. Here is the water-carrier, with his skin bottle slung over his shoulder, shouting loudly: "Ho, ye thirsty ones, come and drink!" A few who have money to

spare buy water from him to quench their thirst, but the crowd pays little attention. Now a rich man comes up and performs a deed of charity. He pays the water-carrier for his bottle of water, and then tells him to go out and give it away to all who are thirsty. Then the seller changes his cry, and shouts: "Ho, ye thirsty ones, come and drink to-day freely, for nothing, for nothing!" Instantly the market-place is a scene of wild excitement. Then, women and children crowd round the water-carrier, trying to secure a free drink before the supply is exhausted. To people who understand fully the price and value of water, the King, Who laid down His heavenly riches in order that all our needs might be supplied, first gave His generous invitation: "If any man thirst, let him come unto Me, and drink." And again: "The water that I shall give him shall be in him a well of water springing up into everlasting life." It is cool and sparkling, and always fresh, far better than the stale, lukewarm water supplied by water-carriers of earth. Isaiah prophesied of the Messiah, saying: "Ho, every one that thirsteth, come ye to the waters, and he that hath no money; come ye, buy and eat . . . without money and without price." In order to supply the needs of all thirsty people, a great sum must have been paid. He Who offers living waters to all who come to Him, paid a terrible price indeed, even His own life.

When new wine is kept in one of these goat-skin "bottles," the bottle must itself be new, or the fermentation will tear the skin and the wine will be spilled. Glass bottles, such as we have, are not used by the natives of Palestine, even in this 20th century.—See St. Matt. ix.: 17.

While we are thinking of water-carriers, let us leave the market-place and walk with two Apostles along the crowded streets of Jerusalem at the Passover-time. They have been sent on a strange errand. Their orders are to look out for "a man bearing a pitcher of water," and follow him to his home. Do you think the quest was a bewildering one, and that they would see countless men carrying pitchers of water? Far from it. Yesterday I heard a native of Jerusalem remark that he had never seen a "man" carrying a pitcher of water in Palestine. It is always the "women" who carry water in "pitchers," on the head or the shoulder. Perhaps the man mentioned in the Bible (St. Mark xiv.: 13) felt that he was doing "woman's work," never dreaming that for that one act he would be remembered for all time. The work which seemed to be humiliating was really the most honored and renowned action of his whole life. He who humbled himself was exalted.

Let us return to the market-place. Here is a baker's boy with his basket of barley loaves. The loaves are about four inches in diameter, and an inch or two in thickness—rather larger than an ordinary baking-powder biscuit, and quite hard. This bread was always "broken," never cut. Perhaps the lad who had "five barley loaves," one day when a great crowd of people were faint with hunger, had joined the crowd to sell his bread, and had nearly disposed of his supply. The loaves were so pitifully small and the need was so tremendously great. What were they among so many? Does the miracle of feeding the multitude with those hard little barley loaves seem to you impossible? Look round you and see the fields giving back their marvellous increase from the small, hard seeds you scattered. You know, by yearly experience, that God can feed millions of hungry people for many months, using and multiplying the small seeds which are thrown into the ground to die and decay. You do your part—though no farmer can really make one potato to feed a hungry child—and God works the marvellous miracle of feeding the multitudes. He can do the same in spiritual matters. Give Him your best powers, all you have, to use for His purposes—and He can and will help others through you. How is it that one of our readers writes: "I really think that Hope must know all about me, so well does she 'speak to my condition'?" Such a message as that comes to me as a glad proof that the Master Whom I serve is really stooping to make use of the pen which I consecrated to His ser-

vice many years ago. Thank you, very, very much, dear "Quaker Dame," for wanting me "to know it," as you say.

Will "Norham" please be kind enough to send me her address? I have a particular reason for asking this.

You see I have suddenly dropped you in Canada again. Our magic carpet was peremptorily recalled from Jerusalem by my conviction that unless this "Quiet Hour" is cut short by me, it will inevitably be cut down by my chief in the "Advocate" office.

Perhaps we may take another trip to the fascinating Orient, another day.

DORA FARNCOMB.

The Ingle Nook.

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

The Child and Its Education.

Dear Ingle Nook Friends,—Have you read a clever bit of jingle on modern child-culture that has been going the rounds of the papers lately? If, not, here it is. Of course, its conclusions may be taken semi-humorously, as they were intended to be; the point is that it calls up a great many questions in regard to a very important subject,—the development of the children to-day, who are to be the men and women of to-morrow.

THE MODERN CHILD.

Born scientifically,
Studied terrifically,
Clothed very carefully,
Dieted sparsely,
Aired systematically,
Bathed most emphatically,
Played with quite drearily,
Punished Spencerially,
Sweet infantality,
Santa Claus banished,
Mother Goose vanished,
Where are the babies,
The real human babies,
The olden time knew?

Harnessed scholastically,
Drilled superdrastically,
Cultured prodigiously,
Classified rigidly,
Reasoned with frigidly,
Loved analytically,
Listened to critically,
Dosed with the "ologies,"
Rushed through the colleges,
Crammed pedagogically,
Where is the childhood
The fresh, happy childhood
The olden time knew?

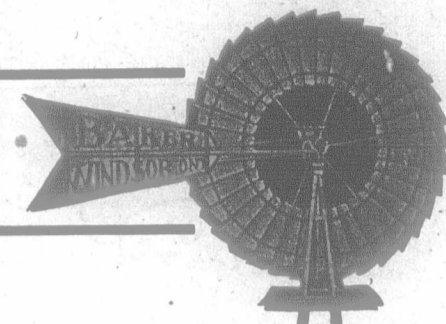
Children successively,
Reared thus aggressively,
Posing eternally,
Wearied infernally,
Planned for initially,
"Formed" artistically,
Will they submit to it?
Never cry "Quit" to it?
Will not analysis
Stop from paralysis,
Till our distraction
Ends with reaction,
Brings back from childhood,
The bright, careless childhood,
The olden time knew.

—Vancouver Province.

Is the child of to-day over-trained and over-educated as this clever skit would lead one to infer? If not, are Canadian children on the whole under-trained and under-educated? What is the happy mean? In what should a child's education consist? Where is the most important part of its education obtained?—These are the questions suggested, and these are the questions that I shall attempt to touch upon, trusting that in so far as I may fall short in my premises and conclusions, someone else may come forward to fill up the gap. The main consideration is that we think to purpose on the question,—one of the most important, you will agree, that can be brought under discussion.

In the first place I do not believe that, generally speaking, the Canadian

Buy the Windmill that Cannot Rot or Blow Over



There is only one expense to windmill-buying, and that's the first cost if you buy a

"BAKER" GALVANIZED STEEL WIND ENGINE

It needs no paint or repairs, can't crack, shrink, swell or blow over. It is fire-proof and vermin-proof. Once set up it will practically cost you nothing.

The towers are made of galvanized iron, have heavy flat steel braces instead of wire or rods as used on other towers, bolts and nuts are thoroughly galvanized.

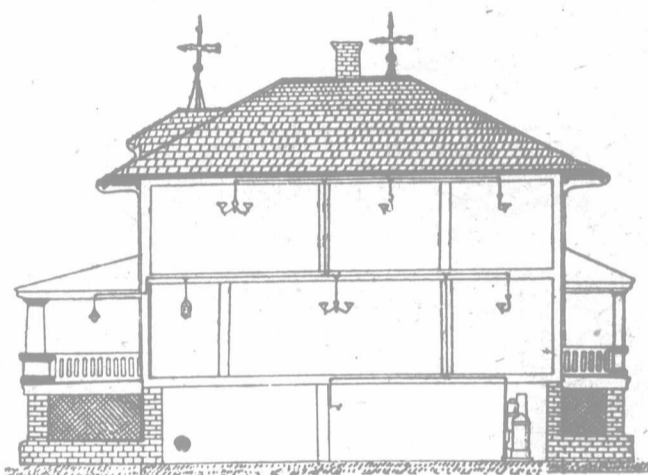
Furthermore, all parts are made exact, and when assembled the tower and windmill need no tinkering or adjusting.

Get your copy of our free booklet, No. 20.

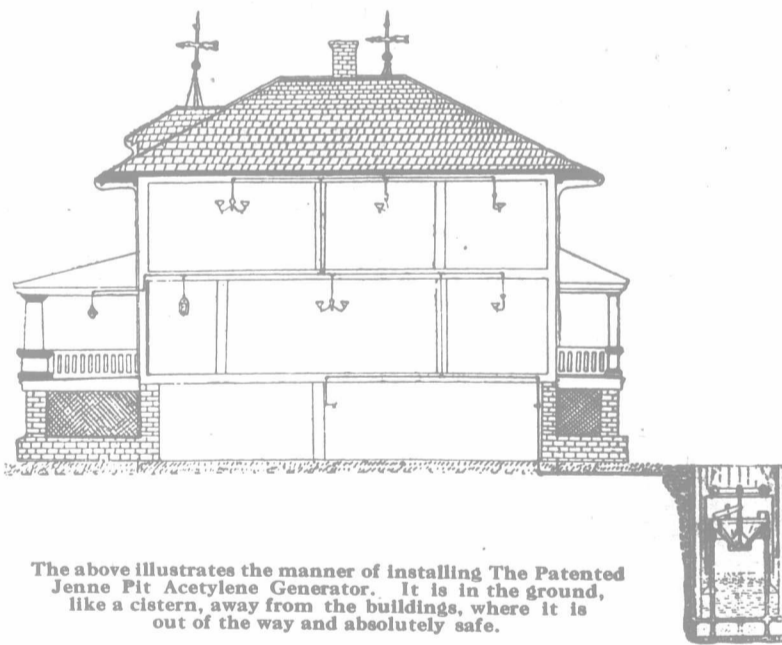
The HELLER-ALLER COMPANY, Windsor, Ont.

THE RESULT OF PAST EXPERIENCE

WITH the many thousands of generators in daily use, develops the fact that manufacturers of Acetylene apparatus MUST DEAL WITH CONDITIONS OF INSTALLATION as well as THEORIES OF CONSTRUCTION, if they expect to remain in business and to be a factor in its highest development.



This illustrates the old time way of installing an Acetylene Generator by placing it in the basement of the residence.



The above illustrates the manner of installing The Patented Jenne Pit Acetylene Generator. It is in the ground, like a cistern, away from the buildings, where it is out of the way and absolutely safe.

Messrs. Jenne & VanDyke, Grimsby, Ont. Beamsville, Ont., April 30th, 1913

Gentlemen,—I installed a one-hundred-pound JENNE in our home nearly two years ago and am well pleased with it. Being a large carbide capacity machine, it requires very little attention about three times a year. I have not had a moment's fear of an explosion as the plant is installed out in my back yard down in the ground and covered over like a cistern which makes it an absolutely safe proposition. You have the best lighting device on the market according to my judgment, and the fellow who buys the old style, complicated machine is getting a "back number." I appreciate the simple and easy way of cleaning and recharging my machine as I have no slush to pack out of my cellar and no water to pack in. I would say further that I would not have a machine in my cellar at any price. I cannot see in what respect you could materially improve upon your generator, and will recommend the Jenne to anyone needing an up-to-date lighting system.

Yours truly,
MELVIN L. BROOK.

Conclusion—Buy a Jenne Pit Generator by all means, for it produces the BEST LIGHT, is the SAFEST, MOST DURABLE, MOST CONVENIENT, and SIMPLE, and COSTS LESS than any other generator of equal capacity or lighting system on earth.

We would ask you to read the article headed "Acetylene Lighting" in the "Farmer's Advocate," May 8th issue, page 862; then correspond with us.

Manufactured in Canada solely by

JENNE & VANDYKE, Grimsby, Ont.

child of to-day, and particularly the rural child, is either over-trained or over-educated. The fault exists, of course, in isolated cases, and, wherever recognized—hard though it is to recognize one's own faults—it should be guarded against.

"Why," says someone, "How can it be possible to over-train a child?"—Perhaps a few concrete instances, each taken from real life, may illustrate better than a mass of argument.

A very charming woman, the mother of a beautiful little girl of three, a very rosy and apple-blossom little damsel, visited this city some time ago, at a home where the children are accustomed to all the joys of free childhood. There is a big sand-heap in the back yard, and there are little shovels and hoes, old tin cans and tiny pails for carrying water, also a fine collection of stones of all kinds all ready for building houses and bridges, fencing farms and making railway tracks,—the very equipment, in short, needful for healthy normal children with a surplus of vitality, a body to be developed, and a mind to be stimulated by imagination and balanced by the spirit of give-and-take that must needs come up in all such play.

Would you be eve it?—Notwithstanding the glories of the back yard, little Miss Rosebud was kept on her mother's knee almost every hour of the three-days' visit. "I nurse her nearly all the time," said the too solicitous parent. "She does get her dresses so dirty, and I do so love to keep her dainty."

Just once did the little prisoner wholly escape for a half-hour, a blissful half-hour in which she got a smudge on her nose, and had sand poured on top of her head and down her back and over her white nainsook dress. Genuinely distressed, the mother, with crimsoning face, snatched her up. "Oh dearie," she said, "you were never so dirty before!" and thereupon followed a vigorous process of washing, brushing and changing of apparel, that left Rosebud tearful, though otherwise as pink and white and dainty as before. Now the sand was perfectly clean sand, and there was no reason whatever for all that to-do. Rosebud was none the better for it.

Another instance which comes up on the moment is that of an adoring mother and an adored son—an only child—of eight or ten years of age. "Only" children are usually an inadvisable experiment, and this one presented no variation from the usual series of complexities. The mother worshipped at his shrine,—and she had theories. One of her theories was that, on no account, should Gerald be forced. Moral and religious suasion—wholly right and excellent as a part-system—were to be the levers by which he was to be elevated into something better than ever was. "Now Gerald, God sees you," was the argument ever and always brought to bear upon the little delinquent,—a great truth truly, and one to be broached with all reverence, but the fact remains that because of its endless reiteration, it became as tinkling brass to the really mischievous Gerald. The words went in at one ear and out at the other, and that was the end of it.

Now, I don't believe in punishing children often, but I do think that in extreme cases nothing else will answer. A boy is the better for understanding that he must do as he is told. Nothing except that which is reasonable should be put upon a child. If he refuses, his reason should be appealed to. If that does not work, then a bit of compulsion will do no harm. If it is not exercised the boy may gain stamina, it is true, but it will be along utterly wrong and perverted lines. More of this later.

Gerald was the centre of the universe, and, worse still, was let know that he was. He was brought in before visitors, and talked to and about, in the hope of drawing out his ideas. He was deferred to. A diary was kept of his sayings and doings, and it was quite common to hear him say, "Mamma, read my diary to the ladies."

As a result of all this over-attention, Gerald, of course, could be nothing but a conceited, self-centred, self-conscious, selfish, often quite disagreeable child, peevish if everything he wanted was not forthcoming on the moment, afraid of other boys, who were chiefly "bad boys"

to him, likely to come flying to his mother, with screams of sympathy, at every ever-so-tiny clash with his play-mates. There was little that was natural and child-like about him. He was continually "showing off," and, of course, was not a favorite among other children. By her over-attention, and indiscreet over-worship his mother had, in short, succeeded only in making him a young prig, unhappy because never able to play spontaneously with little companions, never at ease save when elevated on a pedestal in the drawing-room.

Of course, the mother thought him perfect. Had she known it, the little bright-eyed, dirty-faced Italian living beyond in the alley, was really more lovable.

In another case a mother of six had somewhat the same idea about never forcing children. She was afraid of breaking their will, she said. Now, the will is one of the greatest possessions we humans have, and assuredly it should not be "broken." But it is one thing to break a will and another to wisely direct it. So great was this woman's fear of fracture that not even direction was resorted to. As a result pandemonium reigned in that house of six children. They smashed everything breakable, they galloped up and down the upholstered couches with muddy boots, they made railways of the chairs and left them pock-marked with dents of shoe-nails. The list of their destructiveness was legion. It may be added that these children are growing up now into fairly sensible young people. The give-and-take of so large a family has had its effect, and the parentage was good on both sides. But the mother's nerves were just about shattered during the growing-up process.

As I said before, however, these are isolated cases. I do not think that there is danger of very many Canadian children being spoiled by too much theory, so we may proceed to the next point.

Do many of them suffer from too little theory? From blindness and stupidity on the part of teachers and parents? From utter carelessness in regard to child-culture? From general under-training and under-education?

(To be continued.)

.....

This morning (it is the 20th of May) a letter arrived from the North Country. "We do not know yet whether the fruit-trees have been harmed or not by the frost," it said, "the apple blossoms are not out yet."

Down here in this comparatively warm corner of Ontario they have come and gone, and we have felt the little bit of heart-sinking that always comes with the first touch of brown on the pink and white petals; but in the woods there are still wonderful things to be seen.

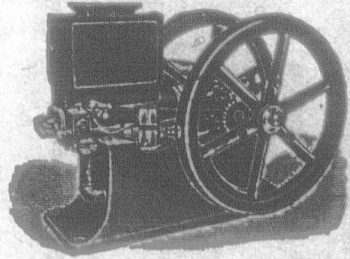
In the dear old north woods there were few flowering trees, an odd pincherry or choke-cherry tree, with greenish white flowers of spicy odor—that was all—and away beyond Ottawa tasselled Juneberry trees, beautiful beyond dream, but down here, wherever a bit of woodland has been left, the springtime turns to fairyland with the bursting forth of the wild crab-apple and hawthorn blossoms.

We were out to see it all on Saturday, four of us armed with a telescope through which to see the birds, but the birds would not sit still, so that part of the trip was a failure. Next time we'll take field-glasses. But what matters missing a bird or two when you can wade through green glooms, look down from an eminence upon tree tops all soft with the tender green of spring, and burst through a thicket every five minutes upon a bank of hawthorn tufted with white, or upon a wild apple tree a mist of white interspersed with tight little pink buds? There were flowers beneath, too, all over the ground, white trilliums here, bishop's cap there, blue violets beyond, with Solomon's seal and twisted stalk for variety. We found a queer little red flower too, in quantity, quite new to me, but familiar to the others under the name of "geum."

And the birds?—Why their songs were all about, a "teacher bird" on this tree answering to a far-off call from that, a warbler trilling his heart out

Get a "Monarch" It Pays

OUR "MONARCH" Engine is a boon on the farm. Saves time and exertion by doing all chores—pumping, sawing, grinding, separating cream, cutting silage, roots, straw, etc. Experts make each "MONARCH" part from best material, including automobile engine features, such as primer, sight-gauge, etc., not found in usual farm engines. Sizes 1½ to 35 h.p.



Send postal for "red circle" folder and terms. Fully explains the "Monarch" part by part.

CANADIAN ENGINES, LIMITED, DUNNVILLE, ONT.

Sole Selling Agents for Eastern Canada:
THE FROST & WOOD CO., LIMITED, Smith's Falls, Ontario
15 Montreal, Que. St. John, N. B.



You've observed—that in front of the finest homes Ford cars are numerous. We are selling an ever increasingly greater part of our gigantic output to experienced automobile owners who have tired of the exorbitant expense of big car up-keep.

Our factories have produced more than a quarter of a million Model T's. Prices: Runabout, \$675, Touring car \$750, Town Car, \$1,000—F. O. B. Walkerville, Ont., with all equipment. For particulars get "Ford Times"—an interesting automobile magazine. It's free—from Walkerville factory. Ford Motor Company of Canada, Limited.

A Keen Old Farmer Said:

"You Are More Fussy Than I Am"

THE old gentleman was very critical and loved fine machines. He owned an EMPIRE and knew we were always trying to make EMPIRES better. But he used to say, "The EMPIRE is good enough—let it alone. Don't be so fussy."

That was years ago. Even then EMPIRES were the household standard for quality on Canadian farms. We wish we could take that dear old gentleman through our factory today. He would see rows of finished

EMPIRE Cream Separators

so perfectly made they start under the mere weight of the crank. He could hold his ear close to one, running at full speed, and hear the ticking of his watch at his other ear. It pays to be fussy about quality.

No medium price separator equals our

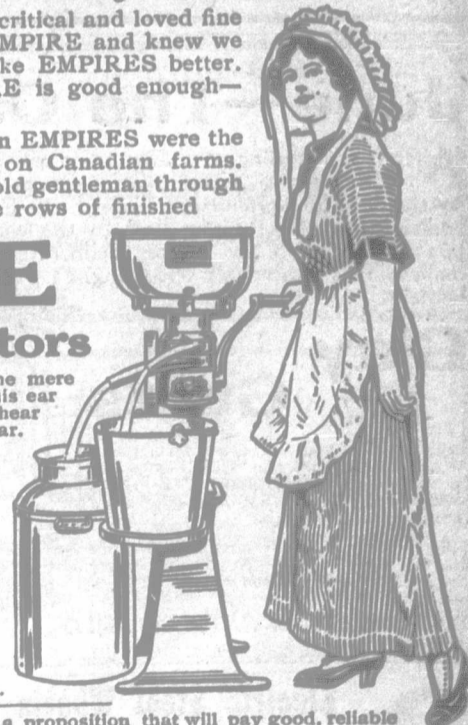
BALTIC Cream Separators
Prices from \$25 to \$45

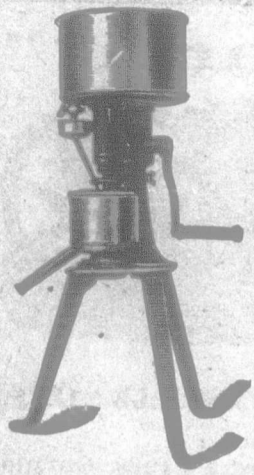
STA-RITE Gasoline Engines

Simple and perfect. All the name implies.

Agents Wanted—We have a proposition that will pay good, reliable men well each year. Agents wanted in unoccupied territory. Agencies are going rapidly. Write us about the agency at once. Tell us which machine interests you. Ask for Catalog 125.

THE EMPIRE CREAM SEPARATOR COMPANY, Ltd.
TORONTO, ONT. WINNIPEG, MAN.





No Other Separator Is "Just as Good."

Remember when buying, the
four essential points in a
Cream Separator—

CLEAN SKIMMING
EASY TURNING
EASY WASHING
DURABILITY

OVER A MILLION IN USE

The "Melotte" has the Largest Sale in the
British Empire.

"MELOTTE"

Beware of low priced, low grade and so-called
cheap separators. We are replacing hun-
dreds every year. They are dear
at any price.

Farmers, don't let that smart salesman get ahead
of you next time. The "Melotte" has been on
the market for twenty years and is still "without
an equal." The

"MELOTTE"

in spite of its innumerable competitors is still the best
in design, materials, workmanship, and construction.

Liberal allowance for old machines exchanged
for "Melotte." Write for catalogue
and full particulars.

R. A. LISTER & CO., Limited.
WINNIPEG TORONTO ST. JOHN, N.B.

June—The Gate Month

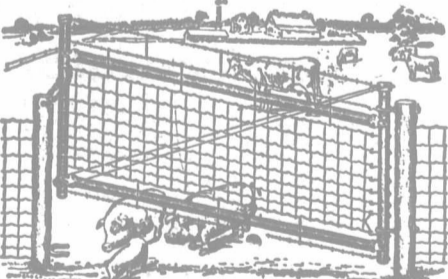
ARE you planning to put up some new gates on your farm this summer?
If so, put up "Clay" Gates—the make of Gate endorsed by purchase
by the Ontario Agricultural College, the Experimental Farm at Ottawa, the
Macdonald College Farm, and by the leading stockmen of Canada. These
buyers choose "Clay" Gates deliberately, after an examination of other
makes. This means only one thing,
namely:

Clay STEEL FARM Gates

have merits beyond all other farm gates.
As a matter of fact, the "Clay" Gate has
no real competitor. 30,000 Clay Gates
were sold in 1912. What other gate has a
record approaching this?

Send for descriptive circular and price
list of "Clay" Gates. A gate for every
purpose. One or a dozen sent for 60 days'
free trial.

THE CANADIAN GATE CO., LTD., 34 Morris St., GUELPH, ONT.



Clay Gates raise—as shown. They can't sag,
bend, break, burn, blow down or rot. Are
fully guaranteed. Last a lifetime.



Electric Steel Wheels with Wide-grooved Tires

Are the ideal wheel for farm and road. Built to fit any axle or
skein, of any height, any width of tire and capacity.

WRITE FOR CATALOGUE AND PRICES.

ELECTRIC WHEEL CO., 8 Elm St., Quincy, Ill., U. S. A.

Or NORMAN S. KNOX
47 Wellington St. East TORONTO, ONT.

in a beech-top, and a meadow-lark
lamenting and a bobolink gurgling over
with more than he could say in the flat
beyond.

If I were such a poet as Browning I
should want to write a poem about
wild-crab-apples and bobolinks and song-
sparrows, a poem so full of the spring-
time and its promise that it would
thrill to the Canadian soul and put
new hope into hopeless hearts, and
awaken the love of beauty in indifferent
ones.

And why Browning? Because I have
been thinking of his "Oh to be in Eng-
land," written when he was in Italy,
and reflecting that I have not yet come
upon anything quite equal to it in Can-
adian spring poetry. Many of our Can-
adian poets have, it is true, written
with feeling about nature, but do you
know of anything on our Canadian May
days quite equal, for pure description,
to this about the English April?

"Oh, to be in England
Now that April's there,
And whoever wakes in England
Sees, some morning, unaware,
That the lowest boughs and the brush-
wood sheaf
Round the elm-tree bole are in tiny leaf,
While the chaffinch sings on the orchard
bough
In England—Now!

"And after April, when May follows,
And the whitethroat builds, and all the
swallows—

Hark! when my blossomed pear-tree in
the hedge

Leans to the field and scatters on the
clover

Blossoms and dewdrops—at the bent
spray's edge—

That's the wise thrush; he sings each
song twice over,

Lest you should think he never could
recapture

The first fine careless rapture!
And though the fields look rough with
heavy dew,

All will be gay when the noontide wakes
anew

The buttercups, the little children's
dower,

—Far brighter than this gaudy melon-
flower!"

I wonder, do we appreciate the country
enough? Do we see enough, hear
enough, smell enough, feel enough to
really appreciate its poetry and such
poetry as this?

Last night we heard a lecture on
Browning, given by a very brilliant
lecturer who is a most fervent admirer
of the great English-Italian poet.
Browning, this lecturer considered, is a
true prophet, though of modern times.
Why, he asks, should we take it for
granted that the spirit of prophecy
ceased with the Old Testament epoch?

And so he points to Browning
as the great prophet and revealer of
truth of these last days,—a conclusion
that will be most interesting to those
of you who followed or took part in
our Literary Society study of "Rabbi
Ben Ezra" three or four years ago. . .
And now I know you'll be wanting to
study Andrea Del Sarto, and Fra Lippo
Lippi, and Saul, and Bishop Blougram's
Apology, and An Epistle, and, mayhap,
The Ring and the Book.

Write us a few letters, will you not?
—and tell us how you have been enjoy-
ing these delightful days and the garden-
ing

JUNIA.

COMPLEXION QUERY.

Dear Junia,—I am a constant reader
of your Nook, and in its columns have
found much valuable information. I
found the remedy for the removing of
freckles a great help, and, as I am of
a rather dark complexion, I was wonder-
ing if you could let me know, through
your valuable paper, how salts can be
used as a face wash in place of powder,
and be harmless to the skin. I have
seen it used with other ingredients in
the form of a liquid, but cannot find
out how it is made. Kindly give
quantities. Thanking you in advance
for your kindness, and wishing you every
possible success.

Wentworth Co., Ont.

AMY.

I can find no specific directions for
making salts face wash, but have heard
that a very strong solution made with
soft water will "take the shine off,"
and that is probably what you desire.
Better experiment to ascertain the right
quantities.

WEDDING CELEBRATIONS.

Dear Junia,—This is the first time I
ever have written to you for informa-
tion, but I always enjoy reading others'
enquiries. Would you be so kind as to
publish the different wedding cele-
brations? I wish particularly to know
what the 20th year celebration is, but
would be grateful for the rest if you
have space to print them.

York Co., Ont. ENQUIRER.

The various wedding anniversaries are
as follows:

First year—Paper.
Second year—Cotton.
Third year—Leather.
Fifth year—Wooden.
Seventh year—Woolen.
Tenth year—Tin.
Twelfth year—Silk and linen.
Fifteenth year—Crystal.
Twentieth year—China or floral.
Twenty-fifth year—Silver.
Thirtieth year—Pearl.
Thirty-fifth year—Coral.
Fortieth year—Ruby.
Forty-fifth year—Bronze.
Fiftieth year—Golden.
Seventy-fifth year—Diamond.

COMPLEXION QUERIES.

Dear Junia,—would you please answer
the following questions?—

What causes pimples? Give a good
cure for them.

Is Peroxide injurious to the com-
plexion? Some people say it makes
the skin a yellow color.

Give the latest way for a girl of
sixteen years of age to dress her hair.
What colors are suitable for a dark
person to wear?

How can a person get rid of moths
under a carpet?

What is a good recipe to remove tan?
Kent Co., Ont. M. M.

Pimples may be caused by some de-
rangement of the system requiring
medical attention, or they may be
caused by clogging of the pores for
want of frequent enough visits to the
bath-tub. This question has been passed
on to the Department of Public Health.
Watch for an answer there.

Peroxide of hydrogen, a strong bleach,
is sometimes used to remove tan. If
used too frequently it has a tendency to
dry the skin.

Girls of sixteen wear their hair in a
variety of ways, choosing the style best
suited to the features, whether corona-
tion braid, three coils at the back of
the head, one coil with a ribbon bow,
or one long curl down the back. If
you watch the heads of the figures in
our fashion department you will be able
to keep abreast of the times in the
matter of hair-dressing.

As a rule people with dark skin can
wear cream, dull tan, olive green, some
shades of brown, maize color, navy that
is almost black, and fawn. A few dark
people look well in red.

Benzine or gasoline will kill moths if
applied freely. Be sure to keep doors
and windows open when putting it on
and until it is completely evaporated
afterwards, and see that no fire or
lighted lamp is within reach. Many
people have been seriously burned, and
have even lost their lives because of
neglecting this simple precaution. Gas-
oline and its vapors are extremely in-
flammable. Did you notice "Twentieth
Century Housekeeper's" letter, published
recently, in which she said that the use
of a vacuum cleaner had banished moths
from her house?

For removing tan use peroxide, apply-
ing a little warm boric acid and water
with a little glycerine added if the skin
should become sore. A milder remedy
is prepared as follows:—Mix buttermilk
with grated horse-radish and corn meal
to make a paste. Put between layers
of thin muslin and keep on the face as
long as possible at night, taking care
to keep it away from the eyes.

RESTORING DRESS.

Dear Junia,—I, like many others, have

been reading your paper for sometime, and now come to ask advice.

I have a red velvet dress which has become darkened with wear, and I would like to know how to bring it back to its natural color. Thanking you in advance.
I. M. A.

Lanark Co., Ont.

Put your dress in a crock, in the shade out of doors, and cover with gasoline. Cover closely and leave to soak for an hour or so, then rub out a little, not too briskly, for fear of igniting the gasoline by the friction. Rinse the dress in fresh gasoline, and hang it on the line to dry. Read carefully the directions to "M. M." in this department of to-day's issue in regard to using gasoline. I do not want to be responsible for an accident. If any of the fluid is left over and you wish to keep it, put it in a tightly corked bottle, and keep in a cool place, preferably an outdoor shed where there can be no danger of fire.

The gasoline will clean the velvet. If, however, the dress is faded, you had better consult a professional cleaner and dyer about it. Possibly it might be re-dyed.

SEASONABLE RECIPES.

Veal Collops:—Cut 1 lb. veal into pieces the size of an oyster; season with ½ teaspoon pepper, ¼ teaspoon salt and a dash of mace. Dip in egg, then into cracker crumbs, and fry in hot butter.

Spring Soup:—Put in a saucepan 2 bunches of lettuce shredded. Cover with 1 pint water. Add one onion, 1 cup canned peas or green peas, a small bunch parsley, and 2 tablespoons butter, and simmer until tender. Season with salt and pepper. When done drain off the vegetables and add two-thirds of the liquor to 1 quart of soup stock or sweet milk. Beat up the yolks of 3 eggs with the other third of the liquor, and just before serving add these and the vegetables. A very nourishing soup.

Dutch Fried Potatoes:—Fry 1 teaspoon chopped onion in pork fat or butter. Add 2 cups sliced raw potatoes, salt and pepper to taste, and fry a light brown. Beat an egg light, pour over the potatoes, and take up at once in a hot dish.

Omelet:—Beat 5 eggs well separately. With the yolks mix ¼ teaspoon salt, 1 saltspoon white pepper, 1 teaspoon flour, 1 tablespoon chopped parsley. Fold in the whites, then turn all on a hot pan greased with 1 large teaspoon butter. Cook until set, fold over and serve on a hot dish garnished with a few leaves of parsley.

Marshmallow Cake:—Beat 2 cups sifted sugar and one of butter until creamy. Add 3 well-beaten eggs, 1 cup milk, 4 cups sifted flour, 1½ teaspoons soda, and strained juice of 2 lemons. Bake in a moderate oven in 3 tins. Mix together 1 rounding tablespoon cornstarch, 1 tablespoon butter, 2 tablespoons flour and ¼ cup milk. Heat 1 cup milk and gradually add to it the flour mixture and ¼ cup sugar. Stir till smooth and cook 5 minutes, stirring all the time. Remove from the stove, cool and add ½ lb. marshmallows (a few at a time) and a teaspoonful of vanilla. Use this to put the layers together. Decorate the top with white frosting or whipped cream and marshmallows.

Crumb Pie:—Line a pie-plate with pastry, and fill with a mixture made as follows: Moisten 1 cup bread crumbs with a little warm water, then add 3 tablespoons brown sugar, ½ tablespoon butter, ½ cup cold water, 1 tablespoon vinegar and ½ teaspoon grated nutmeg. Cover the top with strips of pastry laid on lattice fashion, and bake.

Potato Cake:—Cream together 2 cups sugar and two-thirds cup butter. Add beaten yolks of 4 eggs, 2 cups flour mixed with 2 teaspoons baking powder, 1 teaspoon powdered cinnamon, 1 teaspoon powdered cloves and ½ teaspoon grated nutmeg, and ½ cup sweet milk; then add 1 cupful hot mashed potatoes mixed with 2 squares grated chocolate, 1 cupful chopped English walnuts and the stiffly beaten whites of 2 eggs. The potatoes must be very hot when mixed with the chocolate. Bake in a loaf, and ice with white icing flavored with almond or pistachios extract.

Scrap Bag.

USE FOR AN OLD FLOUR SIFTER.

When the flour sifter has become useless as a sifter, use it for boiling eggs. Place the sifter with the eggs in it in a kettle of water; when done they may be removed all at once.

TO REMOVE FRUIT AND COFFEE STAINS.

Rub the spots with glycerine. Let stand for several hours, then rinse in luke-warm water.

FLOWER VASES.

To prevent flower vases from falling over when top-heavy with flowers, put a small muslin bag filled with shot in each vase.

TO CLEAN THREADS FROM CARPET.

To clean threads from a carpet after sewing, dampen a whisk broom and brush briskly.

MENDING LINGERIE WAISTS.

Laundry a roll of white pieces and keep them for patching lingerie waists and underclothing. There will be no pucker after washing, as when unshrunk material is used.

LAUNDERING PONGEE.

Experiment with Pongee or Shantung silk. Some pieces press out beautifully when perfectly dry, others must be ironed before they have become quite dry, and while they are still evenly damp.

RE-COVERING PARASOL.

If your parasol gives out, try re-covering it yourself. Rip out one section and use it for a pattern, laying it so that the outer edge will be flatly on the selvage of the goods, which will thus form the outer border of the cover.

THE ROSE BUSHES.

Stir the soil frequently about the rose bushes, and mulch with lawn clippings. Spray with tobacco water once or twice a week if insect pests appear. For mildew spray the affected parts with water and dust with flowers of sulphur.

Recipe for Corned Beef.

GOOD CORNED BEEF CAN BE PREPARED AT HOME BY THIS RECIPE

The pieces commonly used for corning are the plate, rump, cross ribs, and brisket, or in other words the cheaper cuts of meat. The loin, ribs, and other fancy cuts are more often used fresh, and since there is more or less waste of nutrients in corning, this is well. The pieces for corning should be cut into convenient-sized joints, say, five or six inches square. It should be the aim to cut them all about the same thickness, so that they will make an even layer in the barrel.

Meat from fat animals makes choicer corned beef than that from poor animals. When the meat is thoroughly cooled it should be corning as soon as possible, as any decay in the meat is likely to spoil the brine during the corning process. Under no circumstances should the meat be brined while it is frozen.

Weigh out the meat and allow eight pounds of salt to each 100 pounds; sprinkle a layer of salt one-quarter of an inch in depth over the bottom of the barrel; pack in as closely as possible the cuts of meat, making a layer five or six inches in thickness; then put on a layer of salt, following that with another layer of meat; repeat until the meat and salt have all been packed in the barrel, care being used to reserve salt enough for a good layer over the top. After the package has stood over night, add for every 100 pounds of meat, four pounds of sugar, two ounces of baking soda, and four ounces of saltpeter dissolved in a gallon of tepid water. Three gallons more water should be sufficient to cover this quantity. In case more or less than 100 pounds of meat is to be corning, make the brine in the proportion given. A loose board cover, weighted down with a heavy stone or piece of iron, should be put on the meat to keep all of it under the brine. In case any should project, rust would start and the brine would spoil in a short time. It is not necessary to boil the brine

DOMINION EXHIBITION

Brandon, Manitoba

July 15th to 25th, 1913

\$50,000 Prize List

\$20,000 in Speed Events

REDUCED RATES ON ALL RAILROADS

FARMERS!

MANUFACTURERS!

We have the most liberal premium list offered in Canada. Refund of 50% of freight on live stock and poultry without restriction as to where else exhibits are shown.

Your opportunity is here. Free space for outside exhibits and special building for manufacturers, automobiles and motor trucks.

Transfer track delivers all live stock right to Exhibition Barns.

See that you have the space. We'll have the crowds.

A premium won at Brandon will be worth having. Send for Prize List.

Fair and courteous treatment assured to all exhibitors.

Entries close July 1st.

Entries close July 1st.

EVERYBODY!

Brandon now has the most beautiful exhibition grounds in Canada, covering 100 acres. We have spent \$150,000 on new buildings for the Dominion Exhibition. In visiting Brandon you come to the most beautiful city in the West. Ample provision has been made for the accommodation of the record crowds that will attend. Municipally-owned street car system right to the grounds.

SOME OF THE ATTRACTIONS

Grand fireworks display, picturing "The Naval Battle in the North Sea," a stupendous spectacle 200 feet long, portrayed in brilliant colored fires. A vivid presentation of modern naval warfare. Beautifully illuminated grounds, with spacious promenades. Music by the best bands in Western Canada. High-class attractions from Europe and America's leading amusement centres, Bobker Ben Ali's Whirlwind Arabs, 12 people. The famous Rex Comedy Circus, Modelsky's Russian Troupe of 8 people, The Barkers, Fire Divers, Performing Elephants, Darling Aviation Flights by Monoplane twice a day, and other events. The Midway with 18 new attractions and the best of the old. High-class, clean entertainment by the great Patterson Shows.

TRAVELLERS' DAY, MONDAY, JULY 21st.

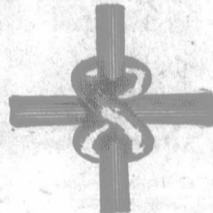
THE EXHIBITION THAT DOES CANADA CREDIT

P. PAYNE, Pres.

W. I. SMALE, Sec. and Manager

The Anthony Wire Fence

The Perfect Tie



See That Knot

ANTHONY WIRE FENCE is the cheapest on the market if you value quality and workmanship.

ANTHONY WIRE FENCE is made from all No. 9 hard steel wire thoroughly galvanized.

ANTHONY WIRE FENCE has the stay wires tied to the line wires with the strongest, neatest and most compact lock on any wire fence made.

ANTHONY WIRE FENCE is so constructed that it will not bend down at the top nor roll up at the bottom; but stands up straight when erected.

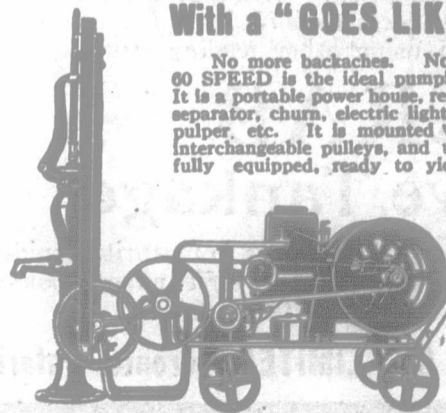
Buy it and try it, and be satisfied.

LIVE AGENTS WANTED IN ALL UNOCCUPIED TERRITORY

The Anthony Wire Fence Co. of Canada, Limited
Walkerville, Ontario.

PUMPING

With a "GOES LIKE SIXTY" Pumping Outfit

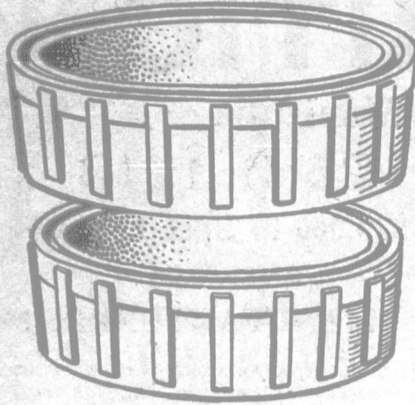


No more backaches. No more waiting for the wind. The Gilson GO SPEED is the ideal pumping engine. It "GOES LIKE SIXTY." It is a portable power house, ready to operate your wash machine, cream separator, churn, electric light dynamo, wood saw, feed cutter, grinder, pulper, etc. It is mounted on wheels, complete with line shaft, five interchangeable pulleys, and universal pump jack. The only engine, fully equipped, ready to yield 100% service. A powerful, durable engine, built to last a lifetime. The simplest engine on the market. A child can operate it.

Write for full particulars and also catalogue of pumps, pump jacks, wood saws, etc.

Gilson Manufacturing Co.
303 York Street, Guelph, Ont.

What This Sectional Firepot Means to You



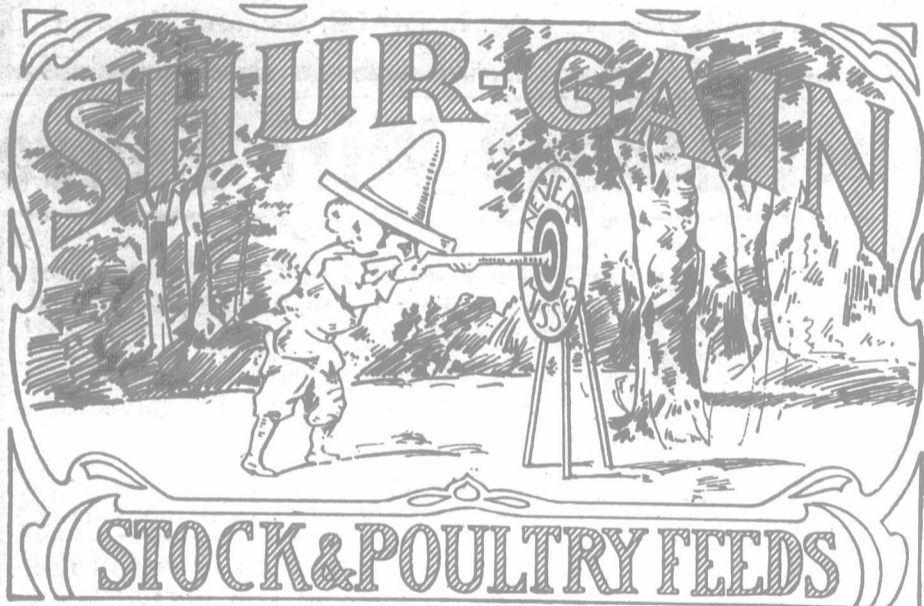
These are some of the advantages of the Sunshine Furnace. Our agent will be pleased to show you others, or write for booklet.

The "Sunshine" has a straight-sided semi-steel firepot, extra heavily ribbed and made in two sections. The two sections allow for contraction and expansion—which prevents cracking. The heavy ribs and semi-steel give extra strength and added radiating surface. Ashes cannot adhere to the straight sides which assures an *all-over* clear fire. This means the greatest heat from the fuel consumed.

McClary's Sunshine Furnace

London Toronto Montreal Winnipeg Vancouver St. John, N.B.
Hamilton Calgary Saskatoon Edmonton 334

GUNNS



BEEF SCRAP	OYSTER SHELL	POULTRY BONE
CHICK SCRAP	CRYSTAL GRIT	BONE MEAL
BEEF MEAL	CHARCOAL	CALF MEAL
DAIRY MEAL	HOG MEAL	

Or any other line of Stock or Poultry Food. Write:

GUNNS LIMITED, West Toronto

WHAT BOW PARK FARM SAY

Bow Park Farm say in a letter to us: "We estimate that every 100 lbs. of tankage cause an increase of 75 lbs. of pork which could not be obtained when using other feeding stuffs alone."

HARAB Digestive Tankage

is a remarkable flesh-producer. Brings hogs to maturity rapidly. Makes money quickly for hog-raisers. Write for Tankage Booklet. It tells all about it, including tables for feeding.

THE HARRIS ABATTOIR CO., LIMITED, Toronto, Ontario

except in warm weather. If the meat has been corned during the winter and must be kept into the summer season, it would be well to watch the brine closely during the spring, as it is more likely to spoil at that time than at any other season. If the brine appears to be ropy or does not drip freely from the finger when immersed and lifted, it should be turned off and new brine added, after carefully washing the meat. The sugar or molasses in the brine has a tendency to ferment, and, unless the brine is kept in a cool place, there is sometimes trouble from this source. The meat should be kept in the brine twenty-eight to forty days to secure thorough corning.—Andrew Boss, Agriculturist, University Farm, St. Paul.—Selected.

News of the Week.

CANADIAN.

A bulk freighter, the "James Caruthers," claimed to be the largest of the kind ever constructed in the British Empire, was launched at Collingwood on May 22nd.

A Church Unity League, looking to closer union with and recognition of other Christian bodies in all Christian work, was organized last week at the Church of the Redeemer (Anglican), Toronto.

As an outcome of the joint classes of Presbyterians, Anglicans, Methodists, and Congregationalists, held in Montreal last fall, a new Union College for theological work is to be erected at a cost of half a million dollars.

BRITISH AND FOREIGN.

The south shore of Connemara, Ireland, is being swept by famine fever.

Socialists and Radicals have scored a victory in the recent Danish elections.

Governor Johnson, of California, in direct opposition to the wish of President Wilson and the authorities of all other States, has signed the Alien Land Bill, directed against the Japanese.

Princess Victoria Louise, only daughter of the German Emperor, and Prince Ernest August of Cumberland, were married at Berlin on May 24th.

Dr. Hurd, a member of the Paris faculty, claims to have discovered a cure, which he calls "loycine," for the cure of tuberculosis. It will be at once tested in France and other countries.

British Cabinet Ministers have been so harassed by suffragettes that they are refusing to attend public meetings unless freedom from molestation is guaranteed.

The sum of £7,416,680 was offered by subscribers to the Chinese loan in London last week. The loan is issued for a term of 47 years, redeemable with annual drawings commencing on the eleventh year. The investors appear to trust implicitly the Chinese reputation for honesty, notwithstanding the present chaotic condition of the new Republic.

Women's Institutes.

SUMMER SERIES OF MEETINGS.

Arrangements have been completed to send lecturers to 750 meetings between the latter part of May and early July. A staff of over thirty speakers has been engaged, and will cover a great variety of subjects of interest to the home-makers of the province. Doctors, nurses, domestic science graduates, dairy specialists, instructors in sewing, and successful practical women who have had no institutional training, but are well qualified through years of experience, will act as lecturers.

"The man who runs that store has got the right idea, all right."

"How so?"

"He advertises: 'Bagpipes and musical instruments.'"

The Beaver Circle

OUR JUNIOR BEAVERS.

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

Little Boy's Lesson.

By Laura E. Richards.

See the little bird's nest
In the apple-tree,
Hair and straw and leaves together,
Woven close 'gainst wind and weather,
Pretty as can be.
Little boy, and could you make it?
No? Then look you do not break it!

See the tiny ant-hill
Busy, busy, all day long,
Close beside the way;
Here the ants, so small and strong,
Live and work away.
Little boy, and could you make it?
No? Then look you do not break it!

See the lovely flower,
Blooming sweet and fair;
Peeping out through leaves and grass,
Giving joy to all who pass.
By its beauty rare.
Little boy, and could you make it?
No? Then look you do not break it!

Junior Beavers' Letter Box

Dear Puck and Beavers,—This is my first letter to the Beavers' Circle. I live in a wood beside a black fox ranch, of which my father is keeper.

They are very cute when they come out to play in the spring. They look something like a Maltese kitten with a white spot on its tail.

My grandfather was the first man who raised black foxes on Prince Edward Island, but he lives now in N. B. about a mile away from here, and we tend his foxes.

If the Beavers would like to know any more about foxes I may write again.

RUSSELL G. OULTON.

Little Shemogue, N. B. (Age 8.)

The Beavers would be glad to hear more about the foxes, Russel.

Dear Puck and Beavers,—As this is my first letter to your charming club, it won't be very long.

I like reading your letters very much. My father takes "The Farmer's Advocate", and likes it.

We have two and a half miles to walk to school, and in the winter time we cannot go at all. My youngest sister, Helen, who is nine years old, goes with me. My oldest sister, Phronzetta, who is 16 years old, goes to High School in Flesherton.

I have two brothers, Everett, 4 years old, and David 1 year and eight months.

I would like some of the members to write to me.

I am in a class at school with six boys.

I guess I will stop now. Lovingly,
Vandeleur, Ont. LULU CARSON.
(Jr. II. Class.)

Dear Puck and Beavers,—This is my first letter to the Beaver Circle. I have one little niece, her name is Clarice. I live on a farm of one hundred acres. I go to school every day. I live one mile and a half from school. My father raises cattle, horses, cows and pigs. For pets I have a large white cat and a pigeon. My pigeon is very fond of music. She dances to it. My letter is getting rather long, so good-bye for this time.

FLORENCE GLASGOW.

Glencoe, Ont. (Book II.)

Dear Puck and Beavers.—This is the second time I have written to you, and as I did not see the first in print I thought I would write again. I enjoy reading the letters very much. I go to school, and like going very well; I have to go about a mile and a half. I live on a farm of two hundred acres. Well as my letter is getting rather long

43⁰⁰

BUY A 1913 MOWER

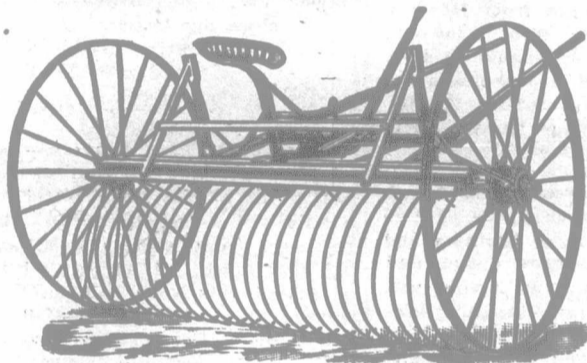
FREIGHT PAID TO YOUR NEAREST RAILROAD STATION IN ONTARIO



THE CUTTER BAR—One of the most important parts of a mower is the cutter bar. No expense has been spared in making it on this mower the best we can obtain. The bar is made of cold-rolled steel, finished in such a way that it is impossible for it to get out of shape. It is manufactured with a smooth top, the nuts being below, with an improved guard rounded away at shank. The smooth top of bar enables the light grass to slip over it without hanging. **THE CUTTER BAR SPRING**—One of the improvements of this mower is the counter-balanced spring to assist the driver in handling the bar. When the bar drops into a hollow the full force of the spring is exerted in bringing it out without the guards plowing the ground and choking the machine. **THE ROCKING TILT** is one of its best features. The bar can be locked in any position, or by the use of the link on the end of lever it can be arranged not to engage in any of the ratchets, and thus the bar will be left free to float on the surface of the ground. **THE FITMAN** is longer than on most mowers, and gives as direct a motion as possible to the knife. We use a hickory fitman, with steel jaws and brass boxing. **DRAFT CONNECTION** is attached above the inside shoe of cutter bar, and extends to the shifting doubletrees, and absolutely overcomes side draft. **THE MAIN SHAFT AND GEARING**—The shaft is made of the very best cold-rolled steel shafting. The main wheels are of good height, and broad on face, giving increased traction. The gearing has only four wheels, and taken in connection with the four driving pawls on main wheels, the result is that when machine moves the knife moves, reduced to an imperceptible point. Machine will stop and start in the heaviest grass crop without backing.

70-335. 5-ft. Cut Mower... **43.00** DELIVERED AT YOUR STATION IN ONTARIO
 70-335A. 6-ft. Cut Mower... **46.00**
 70-336. 5-ft. Cut Mower... **45.00** DELIVERED IN QUEBEC OR MARITIME PROVINCES
 70-336A. 6 ft. Cut Mower... **48.00**

STRONGLY BUILT STEEL SULKY RAKE



An Improved, Strongly-built Rake, up-to-date in every way. It has steel wheels, dodge spoke, in either 8 or 10-ft. widths. The 8-ft. width has 26 spring steel teeth. The 10-ft. width has 32. Where the teeth are attached angle steel is used. The shafts are so constructed that they can be used for either one or two horses as desired.

70-338A. 8- ft. width... **22.00**
 70-339A. 10- ft. width... **25.00**
 DELIVERED TO YOUR STATION IN ONTARIO
 70-338A. 8- ft. width... **23.25**
 70-339A. 10- ft. width... **26.40**
 DELIVERED IN QUEBEC OR MARITIME PROVINCES

BINDER TWINE

MANILLA AND SISAL

AVERAGING 550 FEET TO LB. PRICE PER 100 LBS. **10⁰⁰***

DELIVERED IN ONTARIO

PURE MANILLA

AVERAGING 650 FEET TO LB. PRICE PER 100 LBS. **12⁶⁰***

DELIVERED IN ONTARIO

FOR DELIVERY IN QUEBEC AND MARITIME PROVINCES ADD 30c PER 100 LBS. TO ABOVE PRICES.



HAY LOADER

It is not an untried loader. It is made for us by manufacturers who have made a success of this particular style of implement. We would strongly advise the use of the 4-wheel type of machine. The ordinary 2-wheel loader is cheaper, but does not do the work as well, nor will it last as long, as the two front wheels afford extra support for loader. Only the best of materials are used in the making of this loader. Owing to the scarcity of farm help every farmer should have one.

70-224A. Price... **56.50**
 DELIVERED TO YOUR STATION IN ONTARIO
 70-224A. Price... **59.00**
 DELIVERED IN QUEBEC OR MARITIME PROVINCES

WE GUARANTEE PROMPT SHIPMENT

THE T. EATON CO LIMITED
 TORONTO CANADA

SATISFACTION OR YOUR MONEY BACK

STUMP EXTRACTOR

If you are troubled with stumps, give our "Patent Samson Stump Extractor" a trial. It has now been in use in Europe for the past three years with the greatest success. By its assistance, two men will do the work of three men and a horse. It can also be used for felling trees.

WRITE US FOR DETAILS.

The Canadian Boving Co., Ltd.
 164 Bay Street, TORONTO

We are open to buy car lots of choice timothy HAY and clean bright STRAW. Send prices and particulars to: **CHISHOLM MILLING CO., LTD., Toronto.**

For Sale—Pure-bred Scotch Collies, extra good workers; farm-raised. Apply to **CONRAD SCHMIDT, Box 429, New Hamburg, Ont.**

I must close, and hope this will escape the w. p. b.

FLORENCE McMILLAN.
 Kirk Hill, Ont. (Age 9.)

To "The Farmer's Advocate".—I thought I would send you a few lines. I am nine years old, and my little brother Willie is six. We both go to school, and are getting along well. Our teacher's name is Miss Taylor, and we like her very much. We have a sister called Clara. My grandfather, Mr. Rutherford, has a telephone, and I talk to my nearest neighbor Mr. W. T. Little. Kirby, Ont. MILTON WANNAN.

Dear Puck and Beavers.—This is my first letter to the Beaver Circle, and I hope it will escape the waste paper basket. We have a dog named Buff. For pets I have two cats, and two pigeons. We have a farm of one hundred acres; it is three quarters of a mile from school. Our teacher's name is Mr. Shackleton, and we all like him very much. Now I will close, wishing the Beaver Circle every success. Auburn, Ont. ELDEN H. STOLTZ. (Age 8, Class Sr. II.)

Dear Puck and Beavers.—This is my first letter to your circle. My father has taken "The Farmer's Advocate" for

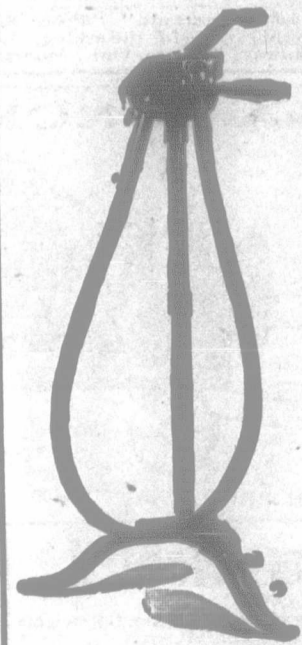
a number of years, and likes it very much. I like to read Puck and Beaver's letters. My pets are a dog and a colt. The dog will run after us and play, but will not bite. We call him Collie. My little colt will bite when any person goes into the stable. He is about a year old, and we call him Prince.

Our school is an old one, but we will have a new school for next year. The old school is a very small one. I like going to school very much. I live about one mile and a half from school, but go every day. I have four sisters, but no brothers.

I will close, wishing the Beavers' Circle every success. I am a faithful reader. ANNA MARY MCGAGHRAM.
 Boyd, Ont. (Age 9, Book II.)

Dear Beavers.—This is my second attempt to become known to you. As you have such a busy name, I think I would like to become one of your number. I would also like to become acquainted with Puck. I enjoy reading the letters from your circle every week. I have three brothers, but no sisters. Two of the boys and I go to Maple Grove school. I was nine years April 4th, and my oldest brother, Nelson, was 12 April 1st or April Fool's Day. We have a little calf February 14th. We

CLIP YOUR HORSE IN THIRTY MINUTES



No matter how thick or scraggy the hair, the

"BURMAN" HORSE CLIPPER

will clip it in 30 minutes. Always ready for use—easy to manipulate, always dependable and clips cleanly, evenly and as close as you wish. If you have one horse or twenty, this clipper will save your time and money—there is a low first cost and no repair expense. Comes packed ready for use—clipping plates and shaft hook for holding clipping head supplied. Ask your dealer or write direct.

B. & S. H. Thompson & Co., Ltd.
 MONTREAL

When Writing Mention Advocate



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

PREMIER

It is the

SEPARATOR YOU WANT

Write us for further particulars.

The Premier Cream Separator Co.
ST. JOHN, N. B. TORONTO, ONT. WINNIPEG, MAN.

Over 50 Head **Dispersion Sale** Over 50 Head
OF
AYRSHIRES

To be held Wednesday, June 4th, 1913

At 12 noon at Terrace Bank Farm,
Howick, P. Que., 2 miles east of Howick Station, G. T. R.

I will offer my entire herd of imported Ayrshires for sale, comprising: Six over four years old; fourteen three years old; twenty two-year-olds; eight yearlings; two young bulls, and three-year-old stock bull. This is a lot of the best Ayrshires ever imported into this country, being selected from all the best herds in Scotland. They are all entered in the test for the Record of Performance, and the amount of milk given so far will appear in the catalogue. They will all be sold subject to the tuberculin test, and all those desiring catalogues, please address DR. J. WATSON, Howick, P. Que.

Conveyances will meet both trains to carry visitors to the farm. Every one interested in Ayrshires should attend this sale, for they are all in the pink of condition, and will be sold without reserve or limit.

JOHN D. DUNCAN, Howick, P. Que.

FERTILE FARMS FREE **CANADIAN NORTHERN RAILWAY**

A SETTLER'S SUCCESS

To the Secretary,
Vegreville Board of Trade.

Dear Sir,

Eighteen years ago I came here from Shawville, Quebec. When I reached my present location, 20 miles north of Vegreville, I was worth just \$10 less than nothing. I homesteaded and worked out for other farmers for a few years. At first we were hampered for lack of railway facilities and progress was slow.

Ten years ago I sold oxen and bought my first horses, 3 small mares, costing together \$150 dollars. Since that time I have marketed \$2,400 worth of horses, and still have 40 head with 13 head of cattle and 40 brood sows. I own 640 acres of land on which there is owing less than \$1000. The district is now well settled, my children have a good school and we have weekly church service at a nearby schoolhouse.

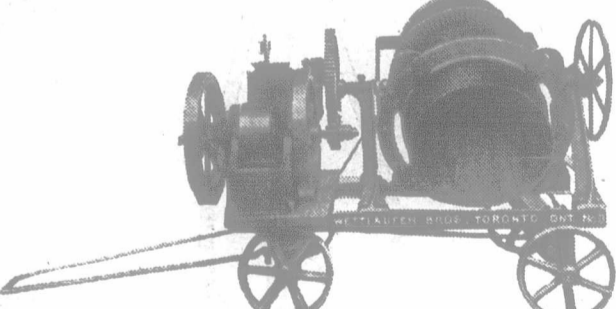
The buildings on my place are comfortable and convenient. There is flowing water throughout the house and stables. I would not sell out to-day for less than \$30,000.

My practice has been to feed all the grain I raise if at all possible. Anyone who adopts the same plan can hardly help but succeed in this country.

Yours truly,
J. H. RICHARDSON.

"35,000 Homesteads," "Peace River and How to Reach It," and other illustrated publications for the asking. General Passenger Department, Canadian Northern Railway, Toronto, Ont., Montreal, Que., Winnipeg Man.

BUY A CONCRETE MIXER



And Save Labor Expense.

THE IMPROVED
WETZLAUFER POWER
MIXER

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

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

WETZLAUFER BROS., 178 Spadina Ave., TORONTO, ONT.

Cream Wanted **Farm Help**

We guarantee highest Toronto prices, full weights and prompt returns. Our 18 years experience ensures satisfaction. We furnish cream cans and pay express charges. Write:

Toronto Creamery Co., Limited
Ontario.

Weekly parties of young men now arriving. Apply:
BOYS' FARMER LEAGUE
Drawer 126 Winona, Ontario

call her Valentine, and cared for her every night. I would be glad to hear from any little girls of my own age. Wishing the Beavers every success.

RUTH ARMSTRONG.
Bowmanville, Ont. (Age 9.)
R. M. D. No. 3.

Dear Puck and Beavers.—This is my first letter to the Beaver Circle, and I would like to join. As soon as "The Farmer's Advocate" comes into the house I read the Beaver Circle, I have two brothers and one sister. I like going to school. My teacher's name is Miss Gilbert. I am in the junior third book. I have nearly two miles to walk to school.

For pets I have a colt, its name is Maud, and a cat named Jack. My father has taken "The Farmer's Advocate" as long as I can remember.

I guess I will close with some riddles. "How many apples does it take to make a pear? (pair.)

"Why is a bedbug like a railroad engine?" Ans.—It runs on sleepers.
Beathton, Ont. FRANK BRAY.
(Age 11, Jr. III.)

Dear Puck and Beavers.—This is the first time I have written to you. My father has taken "The Farmer's Advocate" for as long as I can remember. I read the letters and like them very much. I live on a farm of one hundred acres, situated two miles from Hawkesville, and three miles from Linwood. We have a good dog, his name is Bob. I have six sisters and five brothers.

Hawkesville, Ont. VERA HAID.
(Age 10, Jr. III.)

Dear Puck and Beavers.—This is my first letter to the Beaver Circle. I live on a farm. I have three brothers and one sister. I am ten years of age, and am in the junior third. We have a fine large school, and I have to take sewing lessons once a week. We have two horses and two cows and some chickens, and a little pup called Scottie. As my letter is getting long I guess I will close.

Paris, Ont. MARY WISHART.
(Age 10, Jr. III.)

Dear Puck and Beavers.—My father has taken "The Farmer's Advocate" for a number of years and would not be without it. I have read the Beavers' letters every week and like them. This is the first letter I have written to your circle, and would like to join. I have two sisters. We are all going to school. I have three pet cats. Their names are Snowball, Muggins and Tige. As my letter is getting long I will close, wishing the Beaver Circle success.

VIOLET MINIALLY.
(Age 7, Primary Class.)
Wyoming, Ont.

Dear Beaver Circle.—I have not written for a long time, but will write now. I throw out crumbs every day to the little birds. There are two sparrows and a blue-jay. They come and sit on the clothes line while I throw it out to them.

I have a cat and a dog. My cat went away, but came back again. I am trying for the fourth book at midsummer. I hope I get through. With best wishes to the Beaver Circle.

Tyrone, Ont. MARJORIE OKE.
(Age 9, Book III.)

Dear Puck and Beavers.—I am sending you another engine this time. We have a little water spaniel, and we call him Rover. He has killed minks and coons, and other animals. He will also draw me in a wagon. He also drives the hens out of mischief. Hoping to see this in print.

CLARENCE SIMPSON.
Vanneck, Ont. (Age 9 years.)

Your drawing was very good, Clarence. You are a great "machine" boy, aren't you?

Dear Puck and Beavers.—My father takes "The Farmer's Advocate," and I thought I would write a letter.

I have a dear little sister, she is nine months old. I am in the second book

at home. I have three cats, they are beauties. I liked the drawing by Daphne Allen.

MARY L. CRANSTON.
Caledon East. (Age 7.)

Your drawings (enclosed) are very nice, Mary.

Dear Puck and Beavers.—This is my first letter to the Beaver Circle. My father has taken "The Farmer's Advocate" three years, and I like reading the Beaver Circle. I go to school nearly every day, but I was sick after New Years. I have three brothers and no sisters. My father's farm has two hundred acres in it, and we keep twenty-one cows. I wish your circle much success.

Strathroy, Ont. NONA WILSON.
(Age 9, Class II.)

Dear Puck and Beavers.—As my last letter has not appeared, I will write again. I have a pet cat, its name is Flossy. My father has taken "The Farmer's Advocate" for ten years. I have two brothers, George and Wallace. George has two colts, Nellie Pride and Polly Princess. I go to school every day I can. I like my teacher. Her name is Miss Brown. I have a mile and a half to go to school in summer, but generally get a ride in winter. I will give a riddle. I drove to town and yet walked. Ans.—I had a dog named Yet, and I drove and he walked. I will close my letter.

Thamesford, Ont. LILLIAN FREEL.
(Age 9, Jr. IV. Class.)

Dear Puck and Beavers.—As this is my first attempt to your circle I will not write a very long letter. I have a mile and a half to go to school. My teacher's name is Miss McMillan. I like her very much. I haven't missed a day of school this year. I have two pet colts; their names are Polly Princess and Nellie Pride. I have two pet cows also. Well, as my letter is getting rather long I will close for this time, wishing the Beaver Circle much success.

Thamesford, Ont. GEORGE FREEL.
(Age 10, Class Sr. II.)

Dear Puck and Beavers.—This is my first letter to the Beaver Circle. I go to school, and am ten years old. I have one mile and three-quarters to walk. We have three little calves, and will have eighteen cows to milk this summer. As this is my first letter I will not write so much. I will close with a riddle. What wades in the water on its head? Ans.—A nail in a boat. I wish the Beavers' Circle every success.

MADELINE WAGLER.
Newton, Ont. (Book Senior Second.)

Dear Puck and Beavers.—I am going to tell you about my dog. He is a Collie dog. I got him when he was a pup, and trained him to draw me on my hand sleigh. He draws me wherever I want to go. I have a pair of shafts. He has a white breast and four white feet. He is tan-colored on the back. Well I guess I will close with a riddle. What is it that goes over the land and over the land, and always has its head down? Ans.—A horse-shoe nail.

Orangeville, Ont. NORMAN McFAWL.

Dear Puck and Beavers.—As this is my first letter, I will try and do my best.

My father has taken "The Farmer's Advocate" for some time. We live on a farm four miles from the village of Arva. I go to school every day that is nice, and like it fine. My teacher's name is Miss Mason. There are thirteen pupils going now.

I have a big dog; his name is Perp. He weighs about sixty pounds. He is black, with a white necktie around his neck. How many of the Beavers have a dog like this?

I saw a robin the 12th of March. He chirped as if spring had come. I heard a blackbird and a song sparrow the other day.

Arva, Ont. ANNIE DONALDSON.
(Sr. Second, Age 10.)

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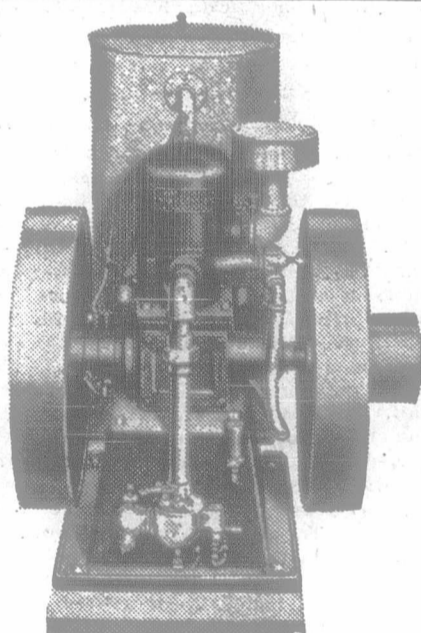
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Dear Puck and Beavers.—This is my first letter to your circle. I enjoy reading the letters very much. My father has taken "The Farmer's Advocate" for two years. We live on a farm, one hundred acres of land. We have two horses and nine cattle, and fourteen sheep. I have a cat named Billy. I am nine years old. I go to school every day. I cross two bridges. I like to go to school. My teacher's name is Miss Chatmen.

JOHNNY A. MacPHERSON,
Charlo, N. B.

Dear Puck and Beavers.—I thought I would write again, as I didn't see the other in print. My father has taken "The Farmer's Advocate" as long as I can remember. I go to school, and am in the third reader. Our teacher's name is Miss Weir. I like her very much. For pets I have a little colt and a dog. Well Puck, I suppose I will close now.

AGNES WOOD,
(Age 11, Sr. III.)
Villiers, Ont.

Towser:

By Ada L. Belew.

I don't care for fishin' now,
Since Towser's gone.
Keep thinkin' how we'd dig fer bait
Over by the garden gate,
But now I have to dig alone,—
Because he's gone.

'Nd I don't want t' swim no more
Since Towser's gone.
He allus use t' swim with me,
There weren't no dog could swim like he
Could swim 'nd dive,—
But now he's gone.

'Nd I just hate t' get the cows
Since Towser's gone.
A great big lump comes in my throat,
'Nd it don't matter how I choke,
Fer it just stays,—
Now Towser's gone.

'Nd when I go t' bed at night,
Since Towser's gone,
Somehow I get t' thinkin', too,
Of all them things we used t' do,
An' oh, how I just wish 'nd wish
He hadn't gone!

The Plow.

I am a worker.
Sleep on and take your rest
Though my sharp coulter shows white
in the dawn
Beating through the wind and rain,
Furrowing hill and plain
Till twilight dims the West,
And I stand darkly against the night
sky.

I am a worker, I, the plow.
I feed the peoples.
Eagerly wait on me
High-born and low-born, pale children of
want:
Kingdoms may rise and wane,
War claim her tithes of slain,
Hands are outstretched to me,
Master of men am I, seeming a slave,
I feed the peoples, I, the plow.

I prove God's words true—
Toiling that earth may give
Fruit men shall gather with songs in
the sun.

Where sleeps the hidden grain
Corn-fields shall wave again;
Showing that while men live
Nor seed nor harvest-time ever will
cease.

I prove God's words true, I, the plow.
—V. F. Boyson, in Everybody's Magazine

"Well, Johnny, what was the text to-day?" asked a proud father of his small son, who had just returned from church.

"Let me fink, faver," said Johnny, as he scratched his head in deep thought. "Oh, yes; I remember. It was 'Don't be scared, you'll get your quilts all right.'"

John's father, after pausing a while over this queer text, called up the minister.

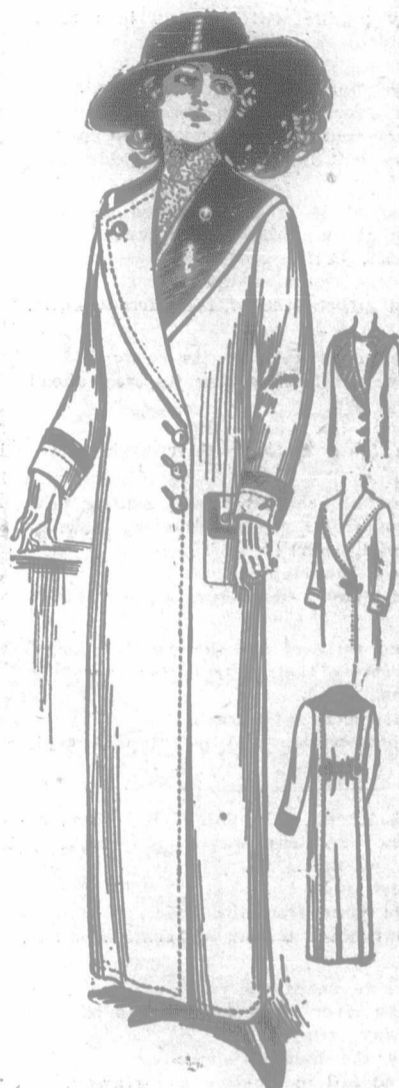
"Could you tell me what was this morning's text. Mr Jones?" he asked, and was convulsed to hear the reply:

"Fear not, the comforter cometh."—Mack's National Monthly.

The "Farmer's Advocate" Fashions.

HOW TO ORDER PATTERNS.

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



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7836 Long Coat, 34 to 44 bust.



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7819 Child's Overalls, 2 to 6 years.

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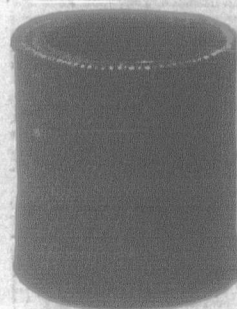
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THE cost of maintaining 33 miles of concrete road in Wayne County, Michigan, does not exceed \$6.00 per mile per year.

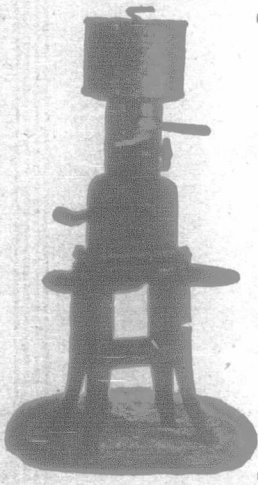
It costs Peel County, Ontario, \$900.00 per mile to maintain macadam roads for the same period.

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in the poultry yard as well as elsewhere. Healthy, husky chicks are the profit-payers. Weak, sickly birds are losers. They are poor producers and their offspring are useless, too. Keep your flock—young and old—vigorous, healthy, full of life and vigor. The use of

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Rid your houses and coops of murderous, blood-sucking mites.

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Questions and Answers. Miscellaneous.

Thoroughpin.

I have a Hackney colt that will be a year old in June. His hock swelled about a month ago. It appears to be thoroughpin or bog spavin. Swelling seems to go down considerable when out on pasture. He is scarcely lame, except when backing up appears a little stiff. Can there be anything done for it?

SUBSCRIBER.

Ans.—Get a blister made of 2 drams each of biniodide of mercury and cantharides, mixed with 2 ounces vaseline. Tie so he cannot bite the parts, and after clipping the hair off around the swelling, rub the blister in well once daily for two days (be sure to rub well in). On the third day wash off and apply sweet oil. Let loose now and oil every day until the scale comes off. If necessary, repeat in a month.

"Exploding" Ground Hogs.

My farm, being a light, gravelly soil, is nearly overrun with groundhogs, or woodchucks, and it seems almost impossible to get rid of them. I saw in your paper some time last summer, in the Question and Answer column, a way to get rid of them by using some explosive. Could you please give me the number of the paper, or better, repeat the recipe, as this is the time the groundhogs do the harm? J. S. H.

Ans.—The item you saw was as follows: Take a piece of calcium carbide about as big as a butternut, dampen it, and drop it in the hole; cover with an old blanket or sod for a few moments to allow gas to generate, light a match, place it under your blanket, and you have an explosion that kills the groundhog. The explosion of the gas gives a shock to the groundhog and leaves the hole filled with impure air.

Hydro Operations.

Can you tell me what powers the Hydro-Electric Commission have for entering on private property, cutting down trees, etc.? I am told they can do as they please without regard to the damage they inflict; and that the amount they pay in damages is only nominal. Below Iroquois, they have cut down rows of big maples, and I am told all they paid was \$25 per tree. Considering that it cost the Bell Company \$600 to replace a tree they damaged in Toronto, and the U. S. Supreme Court has awarded \$500 for one destroyed in New York State, \$25 is very small. If they pass in front of my house, it will damage my property to the extent of at least \$1,000, and I understand the line is to run on the south side of the road, where my house is.

Ontario.
Ans.—They have absolute authority, without the consent of the owners or persons interested, and without any prerequisite or preliminary action or proceeding whatsoever, and without any other sanction or authority, to enter upon any lands required for the purpose of constructing, erecting, maintaining, and operating thereon the transmission lines, etc.; but compensation must be made to such owners or persons interested for all damage to such lands (including buildings, trees, etc.), necessarily resulting from the exercise of such powers. The claim for damages must be presented to the Commission in accordance with the provisions of The Ontario Public Works Act (10 Edw. VII., Chap. 11, Sec. 40), and in the event of no agreement being arrived at as to the amount of the damage, it may be determined by arbitration under that Act, or under The Arbitration Act (9 Edw. VII., Chap. 35), provided the claimant elects—by notice in writing within one month from the entry on and taking possession by the Commission—to proceed under the latter Act.

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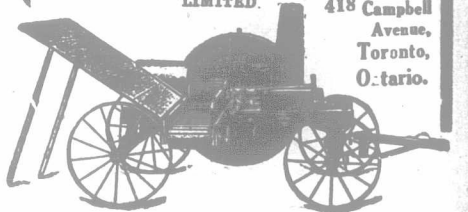
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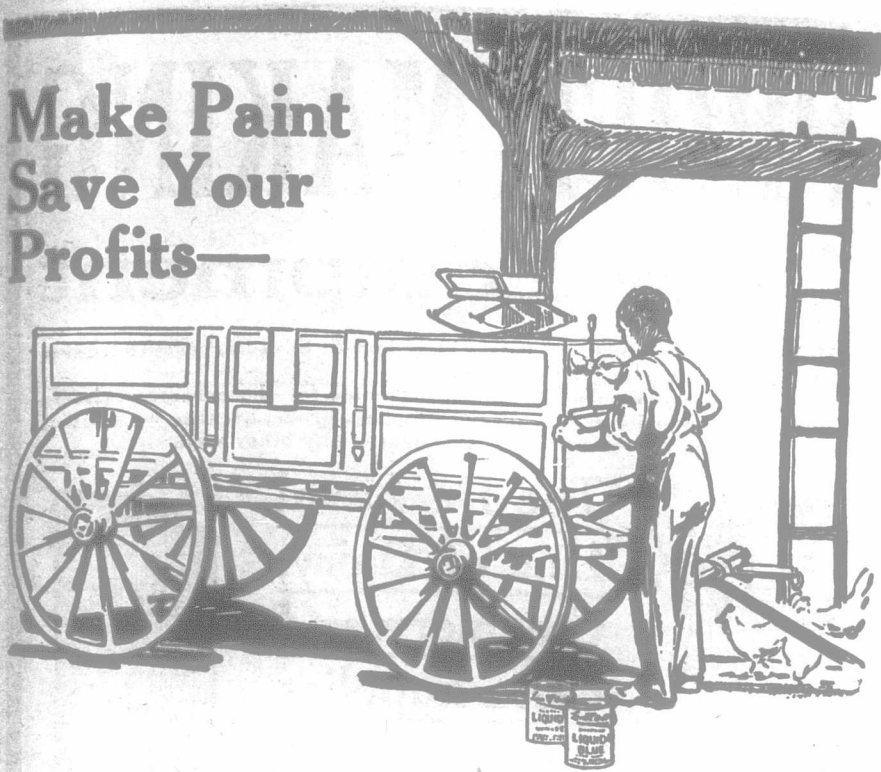
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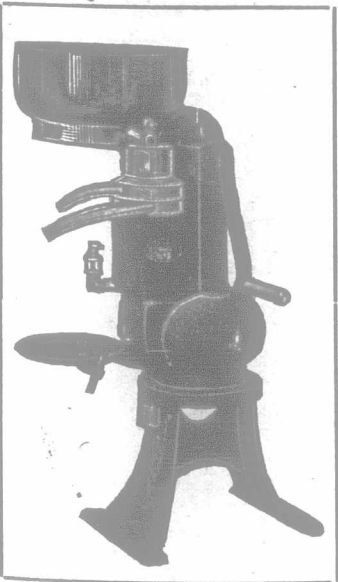
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Questions and Answers. Miscellaneous.

Spraying Potatoes--Line Fence.

1. About how much water will it take to Paris green five acres with the horse sprayer?
2. How much Paris green is needed in same, and the best method of mixing?
3. Is there any poison better than Paris green? Does Paris green hurt the vines?
4. How is a line fence divided when both parties want the same end?

R. J. M.

Ans.—1. The quantity of liquid necessary will depend upon the size of the vines, the fineness of the spray, and the care taken to avoid waste. The amount advisable also depends somewhat upon the quantity of poison used per barrel. One successful potato-grower wrote us a few years ago, stating that he mixed two pounds of good Paris green with fifty gallons of water, and applied this to two acres. Others, using a much weaker strength, have recommended from two to four forty-gallon barrels per acre, depending upon the size of the vines. With a proper spraying outfit, we should suppose you could cover an acre with a barrel while the vines are small, using more later.

2. Use one pound of Paris green to forty gallons of water, and add two pounds of fresh lime, slaked and strained, of course. Better still, use, instead of lime alone, the standard Bordeaux mixture, 4:4:40, with the poison added. For fuller directions, look up the spray calendar, published in our issue of March 27th last. When adding Paris green, either to water or to Bordeaux mixture, reduce the green first to a thin, even paste, with a little water in a cup or bowl, then pour this into the full barrel.

3. Arsenate of lead, at the rate of 8½ pounds per barrel; is preferable to Paris green, but somewhat more expensive. We recommend it, though. Paris green often injures the vines, but is not so liable to do so when combined with lime, either alone or in Bordeaux mixture.

4. Agree if possible; if not, call in the fence-viewers.

Book Review.

MAKING THE FARM PAY.

Agricultural books are filling an important place in the economy of the country to-day. Books based on practical experience are always valuable. A new volume, "Making the Farm Pay," by C. C. Bowsfield, has just been published by Forbes & Co., Chicago. The author of the book lives on a farm, and knows the difference between book-farming and actual soil tillage or care of live stock. Modern farming needs the application of commercial ideas, and real success can only be attained by keeping abreast of the changing conditions and developing a business programme to go along with soil tillage. A farmer may know how to produce a crop, and not understand how to sell it to best advantage. No citizen surpasses the good farmer in the skill and industry with which he performs his labor, but in many cases his time is frittered away with the least profitable of products, while he overlooks opportunities to meet a constant market demand for articles which return large profits. These are a few true statements from the book, which goes on to discuss the great question of "better farming." The "little farm" is believed by the author to be the hope of the American farmer to-day, as well as of the business world. The book deals extensively with intensive farming. Every phase of agriculture gets attention—the raising of vegetables, fruit, flowers, poultry, and stock. Intensive and diversified farming are handled in an able manner. The care of the soil, the treatment of farm diseases, the use of by-products, intelligently meeting the market demands and selling at the best price, are a few of the important topics which are treated. Farming is discussed in its relation to the entire life of the nation, from the viewpoint of the practical farmer, and all those engaged in other branches of economic enterprise. "Farm life need not be more irksome



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Compare "MINERVA" with other paints—the kind that often blisters, peels off and fades.

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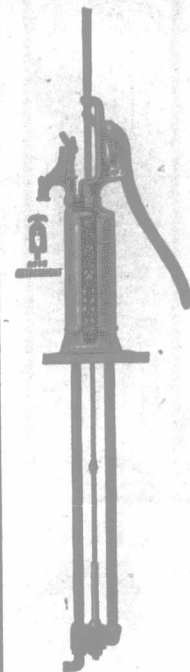
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"It's so easy to paint with Minerva." 248

Pump annoyances never worry the farmers who are fortunate enough to be using the

Imperial Anti-Freezing Pump



The "Imperial" is the pump best suited for all farm purposes.

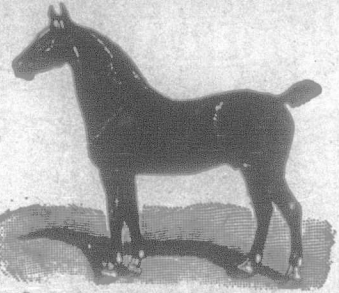
It has a large air-chamber, extending to top of stand, containing 127½ cubic inches. Has 1¼-inch plunger-pipe instead of stuffing-box. The advantage over the stuffing-box is that it has three plunger-buckets which are self-expanding, and therefore require no attention. Can be used on any sized pipe from 1½ to 2 inches in diameter, tapped for 1½, 1¾, or 2-inch pipe. On tubular wells, the plunger can be withdrawn without removing the pump.

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A Safe, Speedy and Positive Cure for
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than clerking or running a typewriter. It ought to be made much more attractive, and it can also be vastly more profitable than it is. Better homes and more social enjoyment, with greater contentment and happiness, will come to dwellers in the country when they grasp the eternal truth that they have the noblest vocation on earth, and one that may be made to yield an income fully as large as that of the average city business man."

The book contains 300 pages, is well-bound, and printed in good, bold type. It may be had through this office, at \$1.10, postpaid.

Potato Dry Rot.

The Nebraska Experiment Station has just issued Bulletin 134, on "A Dry Rot of the Irish Potato Tuber." For several years the Department of Agricultural Botany has been engaged in a study of Irish potato diseases in Nebraska. Among these the dry rot of the tuber is one of the most important. Buyers and commission men have reported losses, during storage, of from 20 to 60 per cent., due to this dry rot. In fact, the most important feature of this dry rot is the fact that it forces the immediate sale of the crop as soon as dug. This tends to demoralize the market, and places the grower at the mercy of the buyers, since he is himself afraid to store his crop and wait for better prices.

The dry rot here described is a strict tuber rot affecting mature tubers only. Neither the stems nor the young tubers are ordinarily in the least affected. Natural infection is known to occur solely through wounds produced in the process of digging or subsequent handling. In many cases this rot secured a foothold through wounds produced by scab-producing animals of certain sorts, and perhaps even through scab spots due to fungus parasitism, though the latter method is certainly very rare, if we may judge from the laboratory experiments.

The rotting is rather slow, and in general, within four to six weeks from one-third to three-fourths of the tuber is destroyed. The epidermis of the rotted portion becomes slightly wrinkled and usually has a characteristic bluish color. On account of the rapid destruction of the underlying tissues the surface over these areas soon becomes distinctly depressed.

The rot may make its appearance at any point on the surface of the tuber, though more commonly perhaps at the bud end of the tuber. There is no watery degeneration of the tuber unless other organisms gain entrance, so that this is in fact a dry rot.

Numerous inoculation experiments have shown that this dry rot is caused by a parasitic fungus, not previously described, for which we have proposed the name *Fusarium tuberivorum*. At the same time, it has also been demonstrated that this dry-rot fungus does not cause the injury to the leaves and stems often referred to as "blight" or "wilt." In other words, the present dry rot of the tuber is not connected in any manner with diseased conditions of other parts of the plant.

Extensive experiments have been conducted to learn if any treatment might be applied before the potatoes were stored that would reduce the amount of this rotting.

These experiments have clearly demonstrated that dry rot may be held in check through treatment of the tubers before being placed in the storage cellars. For this purpose the best results were secured through the use of either formalin dip, formalin vapor, or the lime-sulphur wash. Not only did the tubers in these lots show a very small percentage of dry rot, but they were in excellent condition otherwise when removed in April. The storage time, it should be remembered, employed in this experiment is longer than would ordinarily be employed by the average farmer, and this gave the treatments a severe test. Under ordinary farm conditions, the development of the formalin vapors is not easily secured, and therefore we would particularly recommend the use of the formalin dip as the easiest method to employ, and one that would give excellent results in practice.

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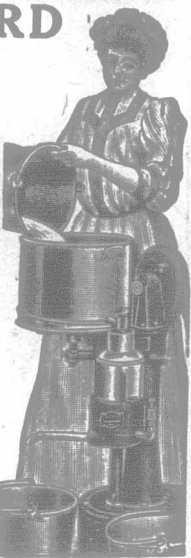
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the Breeding Season as the horse might die while being on the road. Do not **take any chances** by insuring with others, **insure with us!**

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Questions and Answers. Miscellaneous.

A Mineral of No Value.

Kindly tell us the name of this stone, and whether of any value. H. J. A.

Ans.—The specimen submitted is only a piece of gneiss of no value. It contains quartz, feldspar and black mica, which is sometimes golden in color. There is nothing metallic about it.

S. WOOLVERTON, Geologist.

Concrete Cellar Wall.

I am thinking of building a brick-veneer house 32 x 28 feet, and having never heard of a concrete cellar for a house, would like your advice.

1. Would concrete make a good cellar wall, or would stone be any better?
2. If you think concrete would be best, how thick would it need to be?
3. In what proportions should the cement and gravel be mixed?

SUBSCRIBER.

Ans.—1 and 3. In many parts of the country cement concrete in the form either of a solid slop wall, or of cement blocks, is almost the only material employed nowadays in constructing cellar walls. If the slop mixture is made fairly rich, say, 1:7 or 1:8, and the outside is "jarged" or plastered with a rich mixture of cement and sand, such a wall will be more impervious to water than an ordinary stone wall. The inside of the wall should be either plastered with cement mortar, or washed with neat cement. The portion of the wall above ground may be constructed of cement blocks, or may be plastered and marked off in squares as desired.

2. Ten inches is thick enough if the wall is well built.

Suffolk Punch Horse.

Having noticed a short article in a late number of "The Farmer's Advocate" in regard to the Suffolk Punch breed of horses, I would like to know a little more about that breed, and thought that your paper might furnish the information. About what weight are the matured animals of both sexes? Would it be possible to publish an illustration of a typical Suffolk stallion and mare?

W. G.

Ans.—The Suffolk Punch horse is a draft horse, originating, as far as is known, in the County of Suffolk, in England. It can be traced back to about 1700. It is believed to be very pure blooded, and has been developed chiefly by farmers. It is a horse of good quality, ranging from 16 to 17 hands high, short-legged and chunky, and weighing 1,800 to 1,900 pounds in the most favored types. Greater weight than this is often obtained, even up to 2,200 pounds, but Suffolk breeders like a little smaller, more closely-knit horse. The color is chestnut, varying in all the shades, from light to very dark. The breed is noted for its small ears, and very often individuals of the breed show Roman noses. He is a horse of great middle, having a well-sprung rib and great depth. The legs are free of long hair, and they are sometimes criticised as being light in bone. They are said to be excellent horses for farm and express-delivery work. Few of these horses are bred in Canada, and we have no good photographs from which to illustrate.

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The Manor Shorthorns

Bulls sold, up to May bull calves. Have two good ones of that age for sale. Also heifers got by, and cows in calf to, one of the good bulls of the breed. Inspection solicited.

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Shorthorns—Six choice young bulls fit for service, at reasonable prices, from good milking strain.

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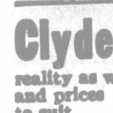
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A few fillies still on hand. Next importation early in May; selected personally. Consisting of prize-winners in local shows, and a few high-priced winners in the big shows. Wait for them. They will be sold at minimum prices, considering quality. D. McEachern, Ormsby Grange P. Que.



Prime-winning Clydesdales, Imported

Stallions and fillies. Our record at the late Coach Show, showed one or more winners in every class. We have now prize-winning stallions and fillies with breeding and quality unsurpassed—All are for sale.

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New importation arrived March 12. 1 to 6 years old. Percheron mares, 1 to 6 years old. Blacks and grays, many prize-winners and champions in each sex; most of the mares safe in foal. Will sell for less money than any of my competitors. Terms to suit. Come and see and be convinced. C.P.R., Ottawa to Montreal line. **J. E. ARNOLD, Grenville, Que.**

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TWO GOOD STRONG BULLS

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

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Shorthorns!

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

H. Cargill & Son, Cargill, Ont.

Oakland—50 Shorthorns

Present offering. Red Baron—81845—, He is a fine massive bull, of a capital milking strain, 3-year-old, our own breeding and all right. Also one good red two-year-old and one sixteen months old of the Dual-purpose strain and can be bought worth the price. Write, or better still, come and see them. John Elder & Son, Hensall, Ont.

SHORTHORN Bulls and Heifers—choice lot, and heifers to calf. Former sire Joy of Morning (imp.)—32070—and Benachie (imp.)—69054—, Present stock bull, Royal Bruce (imp.)—55038— (89000) GEO. D. FLETCHER, R. R. No. 2, Erin, Ont.

Woodholme Shorthorns

I have for sale a number of choice young bulls, from 8 to 14 months old (pure Scotch); also a number of heifers, 1 to 3 years old, of this level type, and richest breeding. G. M. FORSYTH, North Claremont, Ont.

FOR SHORTHORNS

A number of young bulls fit for service at reasonable prices. Write for information. N. A. McFARLANE, DUTTON, ONT. Elgin Co.

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Pedigree With the Animal.

There is little excuse for the buyer of a pedigreed animal being brought to the annoyance and loss that at times we hear of either through the negligence or the dishonesty of the seller. The pedigree is being paid for, and should be considered as much a part of the transaction as taking over the animal or paying the money.

Regarding this feature of the pure-bred trade, W. F. Stevens, Live-stock Commissioner of Alberta, sizes up the situation clearly in the following words:

"The time to pay for a pedigree is when it is delivered. While most breeders are honorable, many are procrastinating, some are negligent, and a few are downright dishonest.

"In order to protect themselves against loss at the hands of the procrastinating and negligent, buyers of pure-bred animals will do well when dealing with breeders of whose honesty they have no knowledge, to withhold a part of the purchase money till the pedigree is supplied, or at least to deposit it in a bank to be paid upon delivery of proper certificate of registration. This can be done without exposing either buyer or seller to any risk, and is perfectly fair to both. My experience with bank managers is that they are always willing to perform this service for the protection of their patrons.

"As a rule, the buyer pays over his money or writes his cheque for the full amount at the time of purchasing, and the seller promises to forward a pedigree as soon as possible, then, after a year or more of waiting, he wakes up to the fact that he has been 'done.' Sometimes he has sold the progeny of these animals with a promise to supply pedigrees, and he finds himself exposed to the danger, not only of disgrace, but also of an action for damages. Now, all of this could easily have been avoided by the exercise of a little caution at the time of buying.

"The time of year is at hand when every person who contemplates buying a pure-bred animal, should keep in mind the warning contained in our opening sentence, that the time to pay for a pedigree is when it is delivered."

More than the average complaints have been heard during the past season from men who have experienced difficulty in procuring pedigrees for pure-bred stock they have purchased. Weeks, months, and in some cases, even years, have elapsed before the registration certificate was passed on from seller to purchaser, causing not a little inconvenience and loss.

In such cases the seller almost invariably makes the excuse that the registration papers are delayed in the National Live-stock Records office, and says that as soon as he procures these the pedigree will be forwarded. This is a very lame excuse, inasmuch as there is no reason why the animal should not be registered by the time it is a month old, and the pedigree supplied at time of sale.

"The Farmer's Advocate" has gone thoroughly into this matter, and it has been ascertained that it is customary for certificates of registration to leave the National Live-stock Records office within two days of receipt of application. Of course, applications must be correct when received, otherwise correspondence must take place. Now and again, when an unusually large number of applications come in, the Live-stock Records office may get three or four days behind, but "The Farmer's Advocate" is assured by J. W. Brant, Accountant of the National Records Association, that no unnecessary delay occurs at the Records office, and he further states: "There should be no delay whatever in seller giving buyer certificate. Properly, animals should be recorded before being offered for sale. Certificates could then be handed over with transfer attached. If not recorded, the delay would be the time it takes a letter to reach us and be returned, allowing two or three days to do the work."

It will thus be seen that this habit that some breeders of pure-bred stock have of blaming the Live-stock Records office for delays of weeks, months, or years, in having their animals recorded

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We have just issued new and complete catalogs covering our various lines and we shall be pleased to mail you a catalog covering whatever supplies you may require. We have also issued a new cream separator catalog, illustrating and describing all the latest De Laval improvements. This is by far the most attractive cream separator catalog ever printed and copy will gladly be mailed to any cow owner upon request.

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

Several heifers that are bred right and that will make great cows; some of them in calf now to my great breeding sire, Superb Sultana—75412—perhaps the greatest son of the great Whitehall Sultan—55049—that was imported by me and used so long in Mr. Harding's herd. I sell nothing but high-class cattle, but the price is within the reach of all. A few Clydesdales, Shropshires and Cotswolds always on offer. Local and Long Distance Telephone.

ROBERT MILLER STOUFFVILLE, ONT.

10 SHORTHORN BULLS 10

If in need of a bull those that we are offering should interest you. They range from 8 to 14 months old, and are nearly all bred direct from imported stock. We also have females of all ages. Sell 'Phone Burlington Junction, G. T. R.

W. G. PETTIT & SONS, Freeman, Ontario.

Springhurst Shorthorns

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

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

J. A. WATT, SALEM, ONT.

SHORTHORNS

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

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5 YOUNG BULLS

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

JOHN MILLER, Brougham, Ont.

5 Shorthorn Bulls 5

—We have for sale at moderate prices 5 Scotch Also a number of high-class heifers and heifer calves.

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

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

KYLE BROS. AYR, ONT.

The Maples HOLSTEIN Herd

headed by Prince Aaggie Mechthilde. For sale a present: Choice bull calves, from Record of Merit dams with records up to 30 lbs. butter in 7 days; All sired by our own herd bull. Prices reasonable.

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

A. C. HARDY, Owner. H. LORNE LOGAN, Mgr., Brockville, Ont.

is merely to shield their own negligence in the matter, and should not be countenanced by those who pay them cash for pure-bred stock.—Farmers Advocate and Home Journal, Winnipeg, Man.

Gossip.

W. T. Davidson & Son, Meadowvale, Ont., breeders of Yorkshire swine, in their new advertisement in this issue, announce that they have for sale a fine lot of December and April pigs of both sexes from large litters and good mothers, at moderate prices, registered, free on board train, and satisfaction guaranteed. Meadowvale is a station on the C. P. R., one mile from Streetsville Junction, twenty miles west of Toronto, and the firm is reliable. See the advertisement and get prices.

At the 28th annual meeting of the Holstein-Friesian Association of America, to be held in Syracuse, N. Y., on June 3 and 4, the following addition to Advanced Registry rules, and matters pertaining to the breed will be discussed: "To appropriate money and authorize the Board of Officers to offer to award special prizes of duplicate premiums where won by animals recorded in this Herdbook, in public competition for yields of milk or butter at such exhibitions as the Board of Officers may select, and to authorize special prizes at fairs where no competitive tests are held, or to establish competitive tests under such conditions as they may deem best, and to offer prizes for the exhibition of cattle at such fairs and expositions as may be deemed best.

The annual report of the Manitoba Department of Agriculture shows a marked increase in production in that Province for 1912. In grain production, an increased yield of over 22,000,000 bushels over the previous high-production year is shown. Much of the wheat in eastern Manitoba, owing to bad harvest weather, was reduced in grade. The average yield per acre in 1912 was 20.7 bushels, as compared with 18.29 bushels in 1911. The oat crop showed a small increase in yield, being 46 bushels per acre, as against 45.6 bushels in 1911. Barley, at 31.5 bushels per acre, showed an increase in yield of nearly 4 bushels per acre over that of 1911. Work with alfalfa has proven that it may be successfully grown in nearly all parts of the Province.

Trade Topics.

Every farm must be furnished with a constant supply of good water. A large percentage of this must be obtained from wells, and in very many places it is necessary to drill for it. Drilling makes machinery and drilling tools necessary. Look up the advertisement in this issue of the Listowel Machinery Co., Listowel, Ont., and write them for catalogue with full particulars.

SEEKING LARGER QUARTERS.—One of the Canadian manufacturers who has recently found it necessary to seek more commodious quarters is Dyer, The Fence Man. Mr. Dyer has removed his offices and manufacturing equipment from 47 East Wellington street, to East King and Don Esplanade, just across from the C. P. R. Don Station, Toronto. The new location will provide more convenient shipping facilities, both by water and rail, as well as greater floor space to accommodate the rapidly-developing wire and iron-fence business. Mr. Dyer is also extending his lines to include gasoline engines, wagons, and other farm machinery, roofing, patent wall-board, etc.

Jonah entered the whale. "This is the original water-wagon!" he exclaimed. Herewith none wondered that he remained aboard only three days.

FAIRVIEW FARMS HERD

REMEMBER:—Pontiac Korndyke sired the bull that sired the new 44-pound cow. Do you want a sire to use that has such transmitting ability? If so secure a son of Pontiac Korndyke, or Rag Apple Korndyke 8th, the strongest bred Korndyke bull in the world.

E. H. DOLLAR, Heuvelton, N. Y. Near Prescott, Ont.



Lakeview Holsteins

Have only two bulls of the serviceable age left and are offering them at very reasonable prices. We are now in a position to offer a few young cows and heifers that are well worth the money asked to anyone looking for the best in breeding.

E. F. OSLER, BRONTE, ONTARIO.

SERVICE BULLS AND BULL CALVES FROM A. R. O. DAMS. Sons of Johanna Concordia Champion, No. 60575, one of the richest bred and best individual bulls of the breed. His granddams, Colantha 4th's Johanna 35.23 lbs. butter in 7 days; fat 4.32 per cent., and Johanna Colantha 2nd 32.90 lbs. butter in 7 days; fat 5.02 per cent. Average butter in 7 days 30.06 lbs.; average fat 4.67 per cent. If you want to increase the butter-fat in your herd, let me sell you one of these bulls. I can spare a few good cows and heifers bred to the "Champion." Write me your wants and I will try and please you. **MAPLE AVENUE STOCK FARM, L. E. CONNELL, Prop., FAYETTE, FULTON CO., OHIO, U.S.A.**

SUMMER HILL HERD OF Holstein Cattle and Yorkshire Pigs

Do you realize that you must have another serviceable bull soon? Better go down to Hamilton right away and see those well-bred fellows with high official backing, that you can buy well worth the money from

D. C. FLATT & SON, R.R. No. 2, Hamilton, Ont. 'Phone 2471. Of course, we always have lots of pigs, all ages.



Holsteins One six year old cow due this month also fine 2 and 3-years heifers, bred; also a few Yorkshire pigs ready to wean. **A. WATSON & SONS, St Thomas, Ontario. L. D. 'Phone Fingal via St. Thomas.**



PURE-BRED REGISTERED Holstein Cattle

The most profitable dairy breed, greatest in size, milk, butter-fat and in vitality. Send for FREE illustrated descriptive booklets. **HOLSTEIN-FRIESIAN ASSOCIATION, F. L. Houghton, Sec., Box 127, Battlere, Vt.**

Herd Bull for Sale—Count of Lakeview (9076); calved March 28, 1910. Bred by Lakeview Stock Farm, Bronte, Ont. A splendid stock-getter. Over 60 per cent. of his get are females. Must sell him, as I have a number of heifers from him of breeding age. He is quiet and sure. Also two young bulls now ready for service, bred by Count of Lakeview, whose dams are granddaughters of Johanna Rhue 4th Lad. Straight and nicely marked. Will sell a few cows due to freshen this month. Bell 'phone, Fenwick Stn. **G. V. ROBBINS, River Bend, Ont.**

HOLSTEINS and YORKSHIRES Minster Farm offers a grandson of Snowflake. She gave 2,064 1/2 lbs. milk in 30 days, and of Count Hengerveld Fayne De Kol; his dam and sire's dam average 24.07%. A sister made 35.55 lbs. butter in 7 days. For extended pedigree and price, write: **R. Honey & Sons, Brickley, Ont.**

Holsteins and Tamworths

I am over-stocked, and will sell a lot of young cows and heifers, winners and bred from winners; officially backed and right good ones. Also Tamworths of all ages. **R. O. MORROW & SON, Hilton P. O., Ont. Brighton Station. 'Phone.**

Evergreen Stock Farm 4 bulls, 12 years old, from officially backed ancestors, ranging from 18 1/2 lbs. at 3 yrs. to 23 1-3 lbs. as matured cows, and on sire's side from 24 8-10 to 29 lbs. of butter in 7 days. Write, 'phone, or come to **F. E. FORTÉ, Burgoyneville, Ont.**

Maple Hill Holstein-Friesians—Special offering: My junior herd bull, Choicest Canary, son of Nannet Topsy Clothilde, 80.23 lbs.; also choice bull calves. **G. W. CLEMONS, R.R. No. 2, St. George, Ont.**

BISHOPRIC WALL BOARD AND SHEATHING

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

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

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

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

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

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

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

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

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

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

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

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

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

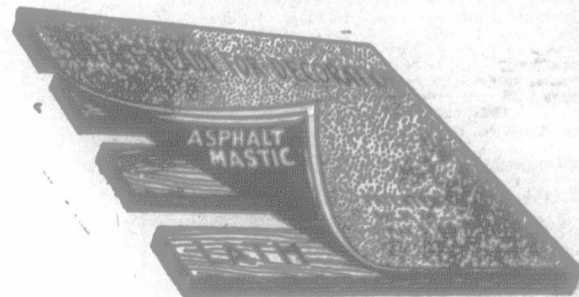
Working plan for Bishopric Model Home—Send 6 cents to cover cost of mailing and we will send you Architectural plan for building a Model House. We will also send sample of Bishopric Wall Board and Bishopric Booklet. Write to-day.

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

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

(Coupon)

BISHOPRIC WALL BOARD CO. LIMITED
OTTAWA, OT.



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

Name.....
Post Office.....
L 8

Maintaining Hog Health.

The old idea that hogs must have a filthy, disease-breeding mud wallow, has gone out. That, in most cases, is a matter of past history. Clean quarters, pure water, and healthy surroundings, will do just as much for hogs as for other animals, and they need it. It is the surest way to keep hogs from contagion. Some good coal-tar disinfectant, such as the famous Zenoleum, plays an important part in hog care and thrift these days. If cleanliness is observed, and quarters be disinfected with Zenoleum, the hogs will be kept free from lice and worms, and by the same means there will be the least possible chance for swine plague to get a hold. The use of a good disinfectant unquestionably pays anywhere, and nowhere more than where hogs are being grown and fattened. Zenoleum is used at forty-three different agricultural colleges, and has proven itself to be such a disinfectant. It is especially valuable to hograisers, among whom it has come to be regarded as a sort of guarantee of continuous health and profit.

Write for a free 64-page Veterinary Adviser, to Zenner Disinfectant Co., 312 Sandwich St., Windsor, Ont.

WOOL

We want large quantities of WOOL, HIDES and SKINS. Your shipments of any size solicited. Write us to-day for our latest prices. Shipping instructions, tags, etc., sent free for the asking.

John Hallam, Limited

111 Front St., E., TORONTO

The largest in our line in Canada.

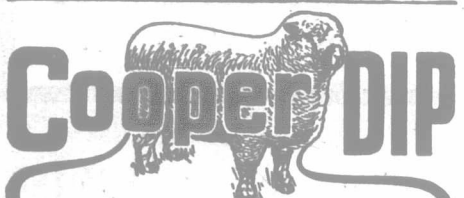
For Sale—Jersey cows and heifers and bulls for exportation. All pedigree and herd-book stock. For further particulars apply to A. T. SPRINGATE, Breeder and Exporter, Gorey, Jersey, Europe.

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

If you want a **YEARLING AYRSHIRE BULL** out of a large teated R. O. P. dam, closely related to one of the heaviest milking strains in Canada.

WRITE: COLLIER BROS.

Beachville, Ontario
Oxford Co., Ontario
High-class Ayrshires—If you are wanting a richly-bred young bull out of a 50-lb.-a-day and over cow, imported or Canadian-bred dam or sire, write me. Females all ages. Prices are easy.
D. A. MACFARLANE, Kelso, Que.



Cooper Dip
ONE DIPPING KILLS ALL TICKS and keeps SHEEP free from fresh attacks. Used on 250 million sheep annually. Increases quantity and quality of wool. Improves appearance and condition of flock. If dealer can't supply you send \$1.75 for \$3 packet. Specially illustrated booklet on "Ticks" sent free for asking. A post card brings it. Address Dept. 77
WM. COOPER & NEPHEWS,
Toronto, Ont., 122 Wellington St., W.

ALLOWAY LODGE STOCK FARM
SOUTH DOWNS
ANGUS
COLLIES

The best in their respective breeds. Write for information to:

ROBT. McEWEN, Byron, Ont.
R.R. Stn. and Tel. Office, London.

Tamworths—A few bred sows; also some very choice spring litters ready to wean.

HERBERT GERMAN, St. George, Ont.
Bell Telephone

Questions and Answers.

Miscellaneous.

Tuberculosis.

Would a two-year-old bull, bred from a pure-bred Ayrshire bull which, when slaughtered, was found to be tubercular, be liable to have tuberculosis? Would you think it advisable to breed from him?

A SUBSCRIBER.

Ans.—Not unless the young bull contracted the disease after birth. Unless he inherited a weak constitution, the fact of the sire having had the disease would probably not increase the chances of the young bull's getting it, providing he was reared in a different stable.

Intermittent Siphoning.

I have a well 12 feet deep, and 270 feet from my barn. The bottom of the well is three or more feet higher than my stable floor, into which I was wanting to run a 1/2-inch pipe from my well. The water in this well in a dry time is only about two feet deep. I dug a trench three feet deep from barn to well, and intended laying the pipe, but I have been told since that the water would only run continuously, and that if I stopped it running by a tap at the barn it would have to be started again. Is there any means that I could use to make the water come after stopping it, as I have no water to waste? Could there be a valve put in the pipe to hold the water up? If so, where should the valve be put in? I have a five-horse power gasoline engine in the barn. Could it be used in case there is no better way, although I prefer not using it if possible? I am sending you a diagram of the system. I have the trench planned.

J. G. M.

Ans.—If the pipe from stable to well is air-tight, then the water will not drop back when the tap in the stable is closed. It will be necessary, in the first place, to have a suction-pump at the tap to start the siphon working, and this pump might be left attached to the pipe so that in case the pipe should leak and the water drop back, the pump would be handy to re-start the siphon. An ordinary cistern-pump, in good working order, should be ample for the starting.

W. H. D.

Sowing Nitrate---Nitrates in Peas---Binding "Advocates," Etc.

1. Can nitrate of soda be distributed over grain that has grown three or four inches high, without injury to it?

2. Will cow peas, turned in when just coming into bloom, have as good effect as peas of other varieties, such as Golden Vine, etc.?

3. Does a crop of peas taken off at the end of the season give as much nitrates to the ground as if plowed in before podding?

4. Have you supplied, or do you supply, covers for binding "The Farmer's Advocate"? I desire to keep mine intact, as I consider it one of the best books of reference a farmer can have.

5. How do you sow Prof. Zavitz's annual pasture mixture? Is the sorghum mixed with the oats or with the clover seed?

J. J. F. H.

Ans.—1. Yes, if not applied in too large quantity. Usually one-half the amount of this material constituting the fertilizer is sown after the grain is up, but preferably when it is about an inch high.

2. On a soil tending towards a sand or light loam, there is a danger that cow peas might loosen it up too much, but on fairly heavy loam, or on clay soils, they would be very beneficial, and are one of the best green manures, even better than the common pea, but the crop does not do so well in cold climates, and, on the whole, in Quebec, the common pea might be preferable.

3. No. The field pea contains in its green state, or in bud, about 5 lbs. of nitrogen, 1.1 lbs. of phosphoric acid, and 4.4 lbs. of potash in every 1,000 pounds.

4. We do not supply covers. The best thing to do is to take the issues for each six months of the year to a bookbinder and have them bound into volumes.

5. With the oats, or all mixed together.

WERE YOU THINKING OF

ROOFING?

WELL, that's our own particular business. Galt Steel Shingles will make your buildings waterproof, windproof, weatherproof and fireproof.

What's more—they are cheaper in the long run than wood or slate, can be laid for one-half the cost of laying wood shingles, or one-sixth the cost of laying slate.

We have some intensely interesting and valuable information to send you regarding this subject of roofing. A post card request will bring it by return mail.

Simply scribble the one word, "Roofing" on the back of a post card, together with your name and address. If you haven't a post card handy, tie a string around your finger so you'll be sure to remember.

ADDRESS:

The Galt Art Metal Co., Limited

252 Stone Road, Galt, Ont.

14

THE NATIONAL SILO

A Necessity for the Dairy Farmer

For Particulars, Write Us

NATIONAL PIPE AND FOUNDRY CO'Y., LIMITED

211 McGill Street, Montreal, Quebec.

BRAMPTON JERSEYS

Several imported cows and bulls for sale. Canada's Greatest Jersey Herd.

B. H. Bull & Son, Brampton, Ont.

GLENHURST AYRSHIRES

Established over 50 years ago, and ever since kept up to a high standard. We can supply females of all ages and young bulls, the result of a lifetime's intelligent breeding; 45 head to select from. Let me know your wants.

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

JAMES BENNING, WILLIAMSTOWN P. O. Summerstown Sta., Glengarry.

STOCKWOOD AYRSHIRES

This herd is now headed by White Hill Free Trader (imp.) No. 33273, championship bull at Sherbrooke; also headed the 1st-prize aged herd. All ages for sale. Satisfaction guaranteed. D. M. WATT, St. Louis Sta., Que. Telephone in house.

This herd is now headed by White Hill Free Trader (imp.) No. 33273, championship bull at Sherbrooke; also headed the 1st-prize aged herd. All ages for sale. Satisfaction guaranteed. D. M. WATT, St. Louis Sta., Que. Telephone in house.

Stonehouse Ayrshires

Of choicest imported stock and with imp. sires and dams. I am offering young cows, 2, 3, 4 and 5 years of age; a grand bunch of imp. yearling heifers, and a particularly good pair of young bulls.

L.-D. Phone. **HECTOR GORDON, Hawick, Que.**

ELMHURST LARGE ENGLISH BERKSHIRES

Present offering: Select sows. Choice boars ready for service; also younger stock, the set of Duke of Somerset, imp., and out of imported dams. Satisfaction and safe delivery guaranteed. H. M. VANDERLIP, Breeder and Importer, GAINSVILLE, P. O. Langford station. Brantford and Hamilton Radial.

Morrison Tamworths and Shorthorns

Bred from the prizewinning herds of England; have a choice lot of young pigs, both sexes, pairs not akin; and also the dual-purpose Shorthorns. Satisfaction guaranteed.

C. CURRIE, Morrison, Ont.

Yorkshires

Choice December sows and boar; also fine lot of April pigs from large litters and good mothers. Prices \$10. up, registered, f.o.b. Satisfaction guaranteed. W. T. Davidson & Son, Meadowvale, Ontario. Peel Co.

NEWCASTLE TAMWORTHS

Imp. blood and show ring quality; I think the best lot I ever bred. Also younger ones of both sexes.

I am now offering young sows, bred, and young boars of breeding age, chuck full of fat. Also younger ones of both sexes.

A. A. Colwill, Newcatle, Ont., L.D. Phone

Cloverdale Berkshires

Present offering: Sows bred both sexes. Prices reasonable. **G. J. LANG, Hampton, Ont. Durham Co.**

Duroc Jersey Swine AND JERSEY CATTLE

Grand stock, either sex, constantly for sale. Price reasonable. **MAC CAMPBELL & SONS, Northwood, Ont.**



MAIL CONTRACT

SEALED TENDERS ADDRESSED TO the Postmaster-General, will be received at Ottawa until noon, on Friday, the 20th June, 1913, for the conveyance of His Majesty's Mails, on a proposed Contract for four years, six times per week, over Rural Mail Route "H," from Bayfield (South) Huron S. R., Ont., from the Postmaster-General's Pleasure.

Printed notices containing further information as to conditions of proposed Contract may be seen, and blank forms of Tender may be obtained, at the Post Office of Bayfield, and at the Office of the Post-office Inspector at London.

G. C. ANDERSON,
Superintendent.

Post-Office Department,
Mail Service Branch,
Ottawa, 3rd May, 1913.



MAIL CONTRACT

SEALED TENDERS ADDRESSED TO the Postmaster-General, will be received at Ottawa until noon, on Friday, the 20th June, 1913, for the conveyance of His Majesty's Mails on a proposed Contract for four years, six times per week, over Rural Mail Route No. A, from Crediton (West), Ontario, to commence at the pleasure of the Postmaster-General.

Printed notices containing further information as to conditions of proposed Contract may be seen, and blank forms of Tender may be obtained, at the Post Office of Crediton, and at the Office of the Post-office Inspector at London.

G. C. ANDERSON,
Superintendent.

Post Office Department,
Mail Service Branch,
Ottawa, 2nd May, 1913.



MAIL CONTRACT

SEALED TENDERS ADDRESSED TO the Postmaster-General, will be received at Ottawa until noon, on Friday, the 20th June, 1913, for the conveyance of His Majesty's Mails on a proposed Contract for four years, twelve times per week, over Rural Mail Route "C," from Crediton and Centralia Rwy. Stn., Ont., from the Postmaster-General's pleasure.

Printed notices containing further information as to conditions of proposed Contract may be seen, and blank forms of Tender may be obtained, at the Post Offices of Crediton, Crediton East, Centralia, and at the Office of the Post-office Inspector at London.

G. C. ANDERSON,
Superintendent.

Post Office Department,
Mail Service Branch,
Ottawa, 5th May, 1913.



MAIL CONTRACT

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

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

G. C. ANDERSON,
Superintendent.

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



MAIL CONTRACT

SEALED TENDERS ADDRESSED TO the Postmaster-General, will be received at Ottawa until noon, on Friday, the 20th June, 1913, for the conveyance of His Majesty's Mails, on a proposed Contract for four years, six times per week, over Rural Mail Route "B," from Seaforth (West) (Huron S. R.), Ont., from the Postmaster-General's Pleasure.

Printed notices containing further information as to conditions of proposed Contract may be seen, and blank forms of Tender may be obtained, at the Post Offices of Seaforth, Egmondville, and at the Office of the Post-office Inspector at London.

G. C. ANDERSON,
Superintendent.

Post-Office Department,
Mail Service Branch,
Ottawa, 3rd May, 1913.



MAIL CONTRACT

SEALED TENDERS ADDRESSED TO the Postmaster-General, will be received at Ottawa until noon, on Friday, the 20th June, 1913, for the conveyance of His Majesty's Mails on a proposed Contract for four years, six times per week, over Rural Mail Route "D," from Dashwood (Shipka, Corbett), Huron, S. R., Ont., from the Postmaster-General's Pleasure.

Printed notices containing further information as to conditions of proposed Contract may be seen, and blank forms of Tender may be obtained, at the Post Offices of Dashwood, Shipka, Corbett, and at the Office of the Post-office Inspector at London.

G. C. ANDERSON,
Superintendent.

Post Office Department,
Mail Service Branch,
Ottawa, 2nd May, 1913.



MAIL CONTRACT

SEALED TENDERS ADDRESSED TO the Postmaster-General, will be received at Ottawa until noon, on Friday, the 20th June, 1913, for the conveyance of His Majesty's Mails on a proposed Contract for four years, six times per week, over Rural Mail Route from Stratford or Shakespeare, Ont., from the Postmaster-General's pleasure.

Printed notices containing further information as to conditions of proposed Contract may be seen, and blank forms of Tender may be obtained, at the Post Offices of Stratford, Shakespeare, and at the Office of the Post-office Inspector at London.

G. C. ANDERSON,
Superintendent.

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



MAIL CONTRACT

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

Printed notices containing further information as to conditions of proposed Contract may be seen, and blank forms of Tender may be obtained, at the Post Offices of Egmondville, Seaforth, and at the Office of the Post-office Inspector at London.

G. C. ANDERSON,
Superintendent.

Post-Office Department,
Mail Service Branch,
Ottawa, 3rd May, 1913.



MAIL CONTRACT

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

Printed notices containing further information as to conditions of proposed Contract may be seen, and blank forms of Tender may be obtained, at the Post Office of Crediton, and at the Office of the Post-office Inspector at London.

G. C. ANDERSON,
Superintendent.

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



MAIL CONTRACT

SEALED TENDERS ADDRESSED TO the Postmaster-General, will be received at Ottawa until noon, on Friday, the 20th June, 1913, for the conveyance of His Majesty's Mails on a proposed Contract for four years, six times per week, over Rural Mail Route "F," from Exeter (West) (Huron, S. R.), Ont., from the Postmaster-General's pleasure.

Printed notices containing further information as to conditions of proposed Contract may be seen, and blank forms of Tender may be obtained, at the Post Offices of Exeter, Hay, and at the Office of the Post-office Inspector at London.

G. C. ANDERSON,
Superintendent.

Post Office Department,
Mail Service Branch,
Ottawa, May 6th, 1913.



MAIL CONTRACT.

SEALED TENDERS ADDRESSED TO the Postmaster-General, will be received at Ottawa until noon, on Friday, the 27th June, 1913, for the conveyance of His Majesty's Mails on a proposed Contract for four years, six times per week, over Rural Mail Route No. 2, from Park Hill, Ont., from the Postmaster-General's pleasure.

Printed notices containing further information as to conditions of proposed Contract may be seen, and blank forms of Tender may be obtained, at the Post Offices of Park Hill, Sylvan, Lamon, and Sahle, and at the Office of the Post-office Inspector at London.

G. C. ANDERSON,
Superintendent.

Post Office Department,
Mail Service Branch,
Ottawa, May 12th, 1913.



MAIL CONTRACT

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

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

G. C. ANDERSON,
Superintendent.

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



MAIL CONTRACT

SEALED TENDERS ADDRESSED TO the Postmaster-General, will be received at Ottawa until noon, on Friday, the 27th June, 1913, for the conveyance of His Majesty's Mails on a proposed Contract for four years, three times per week, each way, between Brinkman's Corners and Tobermory, from the Postmaster-General's pleasure.

Printed notices containing further information as to conditions of proposed Contract may be seen, and blank forms of Tender may be obtained, at the Post Offices of Tobermory, Brinkman's Corners, McVicar, and at the Office of the Post-office Inspector at London.

G. C. ANDERSON,
Superintendent.

Post Office Department,
Mail Service Branch,
Ottawa, 13th May, 1913.

GRAND TRUNK RAILWAY SYSTEM

Homeseekers' Excursions

To Manitoba, Saskatchewan, Alberta.

Each Tuesday until October 28, inclusive
WINNIPEG AND RETURN \$25.00
EDMONTON AND RETURN \$48.00
Proportionate low rates to other points. Return limit two months.

Through Pullman Tourist Sleeping cars are operated to Winnipeg without change via Chicago and St. Paul, leaving Toronto 11.00 p.m. on above dates.

Tickets are also on sale via Sarnia and Northern Navigation Company.

Full particulars and reservations from Grand Trunk Agents, or write C. E. Horning, D.P.A., Union Station, Toronto, Ont.

The Call of the North

Do you know of the many advantages that New Ontario, with its millions of fertile acres, offers to the prospective settler? Do you know that these rich agricultural lands, obtainable free, and at a nominal cost, are already producing grain and vegetables second to none in the world?

For literature descriptive of this great territory, and for information as to terms, homestead regulations, settlers' rates, etc., write to

H. A. MACDONELL

Director of Colonization
Parliament Bldg. TORONTO, ONT.

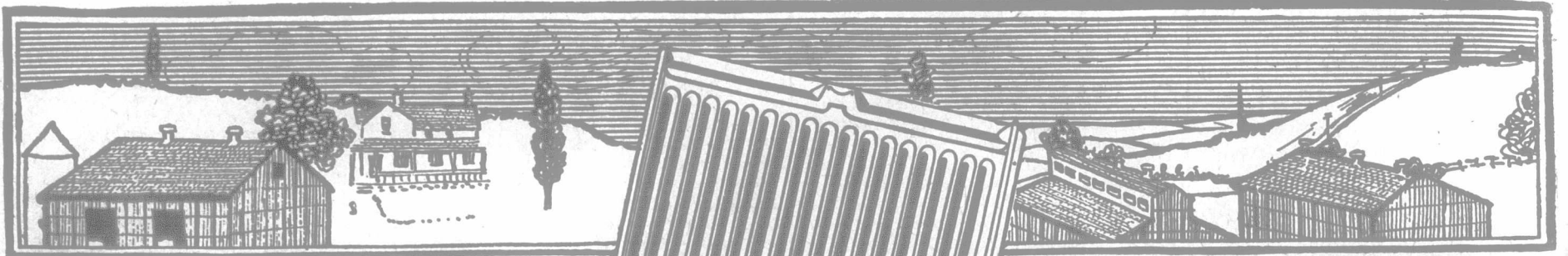
Cunard Line

Canadian Service
Immigration Department

Special Interest to FARMERS' CLUBS

We secure "Help" for Farmers from the country districts of the British Isles. Requisitions must be filled up. Copies sent on application. Average time to get your "Help" about 6 weeks; No fee charged. Only regular fare on Ocean and Rail to pay. You need not be without "Help" this Summer or Fall if you send requirement early. Write for further particulars.

Cunard Steamship Company LIMITED
114 King Street W, Toronto.



"Use My New 'George' 100 Year Metal Shingle on the Roof and My Zinc Covered Corrugated Iron on the Walls of your Barn"

This is the Shingle I Recommend for Barns

"My son, George H. Pedlar, Jr., invented this big shingle, just before he died. He planned a big shingle for big roofs, to lay in one-tenth the labor time needed for cedar. We made up and tested them for three years. I recommend the 24 x 24 inch 'George' shingle for good-size barns. It costs the same as my 16 x 20 'Oshawa' shingle per square. Both are in 100-year metal, and are fireproof, lightning-proof and sunproof. These two shingles are the triumphant result of 50 years of labor in making good barn roofs."



"I HAVE been making metal shingle for farm barns for half a century. I found recently a hundred-year metal for my shingle. It surpasses and outclasses anything else in the world that a man can use for a barn roof. You want a 100-year roof on your barn, at about the cost of cedar shingle, don't you? Of course you do."

"Well, that means my shingle. My metal shingle will cost any farmer less to-day, and be lighter and stronger, than cedar shingle. This is because my shingle saves many dollars for labor cost in laying. My shingle needs no paint. Once this cost advantage did not exist. But now-a-days labor cost of laying is very high. Wood shingles are of poorer quality and advanced cost. All told, my roof on the barn itself is the utmost value your money can buy—is to-day's most economical roof."

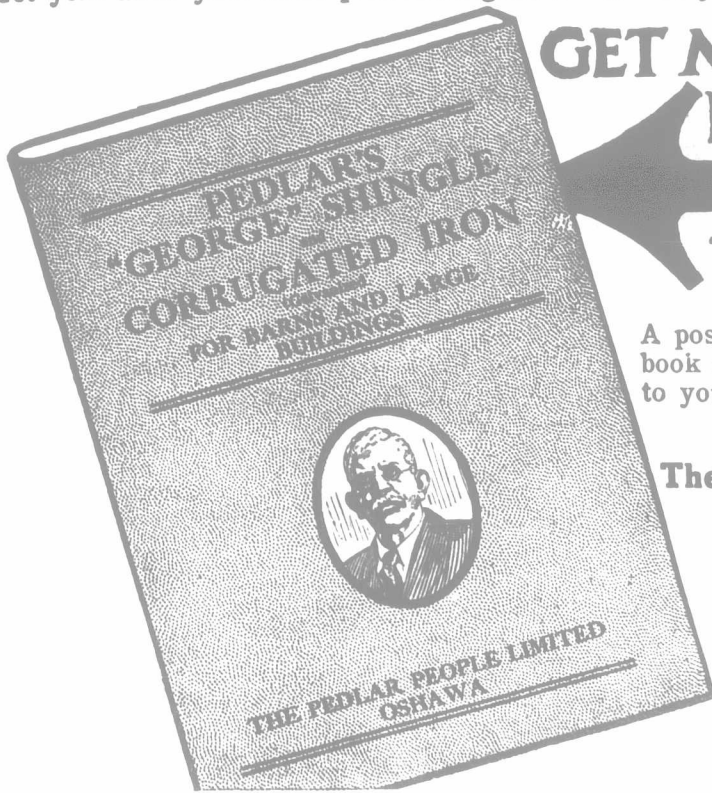
"A barn built without my shingle is going to cost you more in actual dollars to-day, and next year, and every year, than you need to spend. It is going to be a leaky barn sooner or later. You will pay higher fire insurance. You will take bigger fire risk. You will either pay out money for roof repairs, or see your hay and grain rot year after year from poor roofing material. Only my shingle in

metal will stop these troubles from the beginning. It will give service for one hundred years. Besides, you actually pay out less money for my roof, when laid, than for a cedar-shingle roof laid and painted properly."

"But that is not all in lowering barn cost. The time has come to stop using lumber sidewalls. Labor and lumber is too expensive. Use my galvanized, corrugated iron for the walls. It is fireproof and strong. It is applied swiftly in 8-ft. sheets, saving days and days of wages. Besides cutting out painting, every sheet of my iron in a brace, that strengthens your barn framing against sagging and wind pressure. A barn with my shingle and my sidewalls in metal costs less than the same barn with cedar shingles or roll roofing and lumber walls, when you figure in labor and paint. Use my corrugated iron for your barn walls, and my metal shingle for your roof—save money, get a lightning-proof barn, and get a longer-lasting barn than any other way."

"Write my nearest office about your new barn or remodelling your present barn. Tell us the dimensions. We will tell you what shingle and walls in metal will cost you and what they will save in labor and paint."

"Send them a letter to-day. I now have two sizes of metal shingle for you. My big shingle, the 'George,' is 24 x 24 inches. My 'Oshawa' is 16 x 20 inches. According to the size of your barn, we will tell you the right shingle to use. Even the big 'George' Shingle does not cost more per roofer's 'square'; your roof and its shape determines the size needed. My corrugated iron goes with either shingle."



GET MY NEW PEDLAR BOOK FREE

"WHY not have my little book? It shows how a barn is built with my shingle and corrugated iron siding. It is a straight talk about making a better barn at less cost than the old way, and making it fireproof as well. A post-card will bring it. My nearest branch will send you this book free. I have just written it. It is my personal message to you."

G. H. Pedlar

The PEDLAR PEOPLE Limited Estd. 1861
OSHAWA, CANADA 327

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127 Rue du Pont | SYDNEY
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Write nearest Warehouse for "George Shingle," Book No. 150