

Dr. Maria Montessori

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Dept of Agriculture

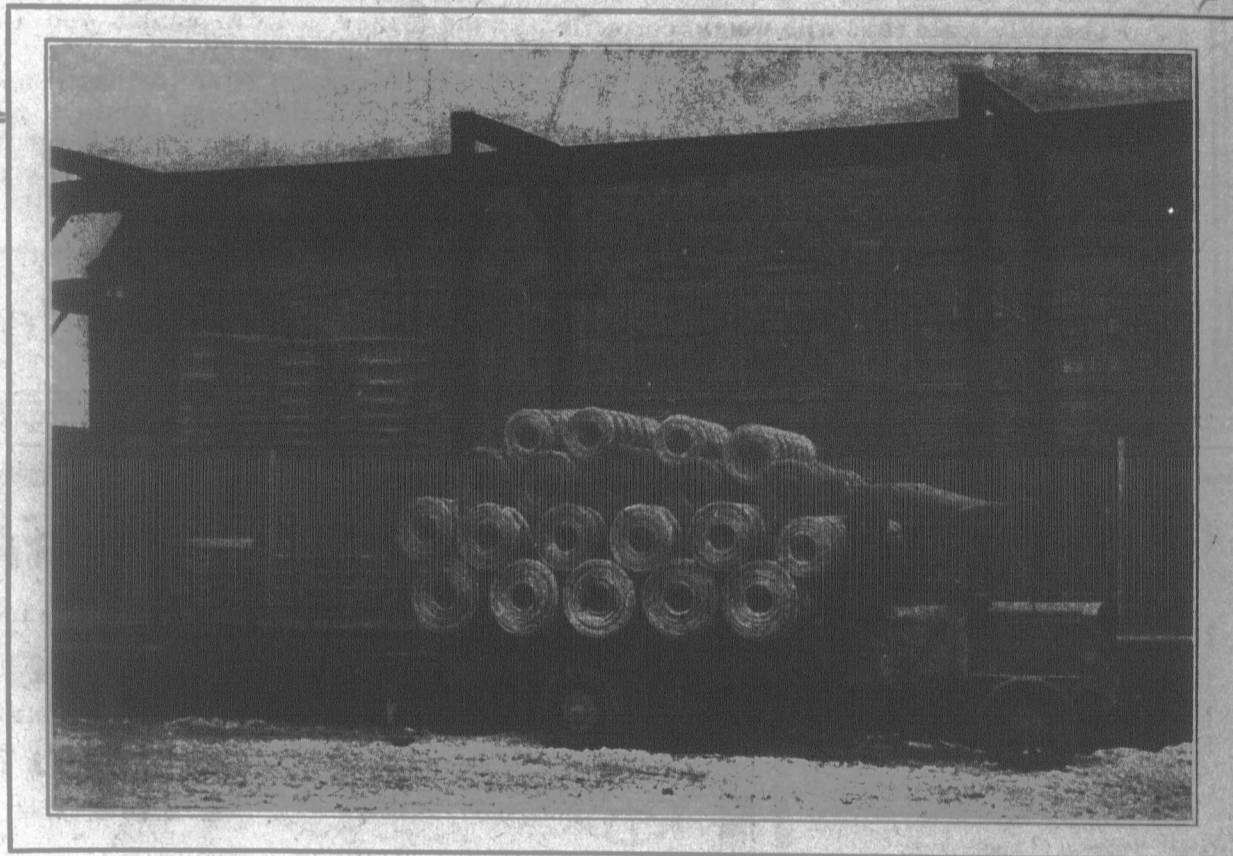
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Vol. XLIX.

LONDON, ONTARIO, JANUARY 29, 1914.

No. 1087

Frost Fence First



CONVENIENCES such as shown above permit the handling of an enormous output at a big saving in time, labor and expense. You profit by our enterprise.

The Electric Conveyor carries ten large rolls of fence at one trip. The old way would require ten men and ten trucks for ten rolls, besides taking double the time. This Conveyor picks up from two to three tons of fence in the fence loom building or in the storage yard, and in two minutes the load is on the motor truck or at a car door on one of our private G. T. R., C. P. R. or T. H. & B. railway sidings, of which we have nearly half a mile. Our private loading platforms cover a quarter acre.

This equipment means an enormous saving, all for your benefit, because the entire amount goes for better material and greater care in the make-up of FROST FENCE.

Operating our own Wire Mills here, with a daily production of from seventy to seventy-five tons of wire specially made and galvanized for service in FROST FENCE, gives us another big advantage, whereby you profit.

FROST FENCE sells because of stability and service-giving qualities. Investigate some of the claims made for the cheap fences, and your faith in THE FROST WAY OF MAKING FENCE will be greatly strengthened.

Decide now about the fence you should buy. Prove to your own satisfaction the several necessary features which a good fence must have. Well galvanized, full-size wire, fence quality, must stand variations of from twenty degrees below zero in mid-winter, with heavy drifts of settling snow and ice towards spring, to ninety degrees above in mid-summer, with usual rough usage

and abuse when confining your live stock in pastures where FROST FENCE intends them to remain. No fence without ample provision for give-and-take will adjust itself to all these conditions.

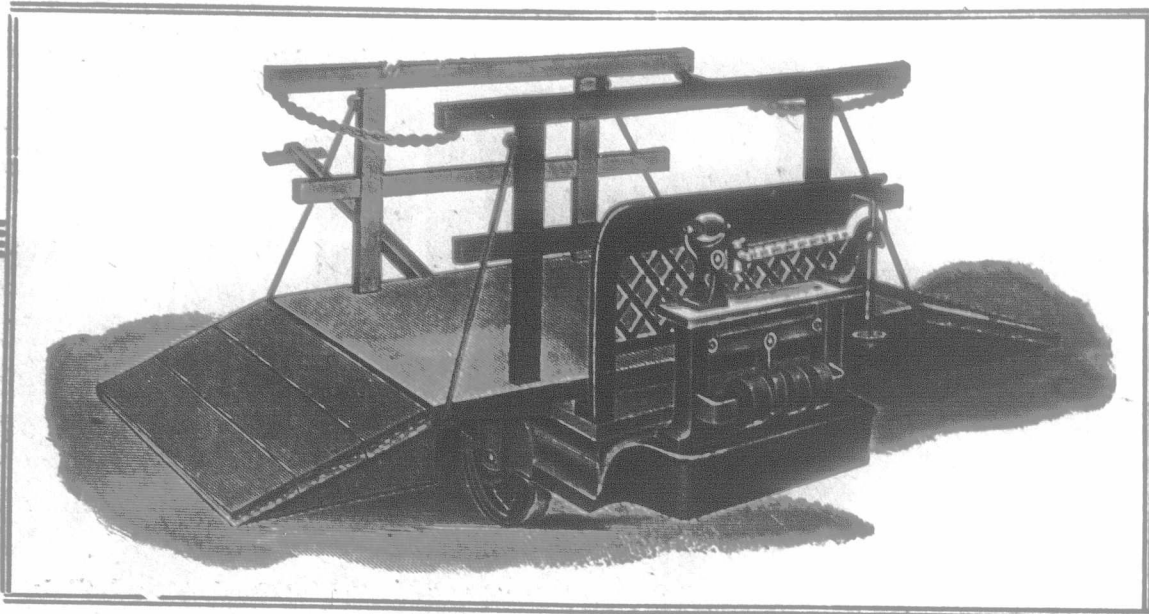
The horizontals must be absolutely even in length, so that each shares the burden of any strain, otherwise the tightest will give way.

Demand fence with stays straight and evenly spaced, and of still greater importance, demand the binding that really holds.

FROST FENCE stands every test and all extremes of weather. Do you know of any other in which you could put so much dependence?

Get a catalogue from your nearest dealer. If he is not known to you, write us.

FROST WIRE FENCE COMPANY, LIMITED, Hamilton, Ontario

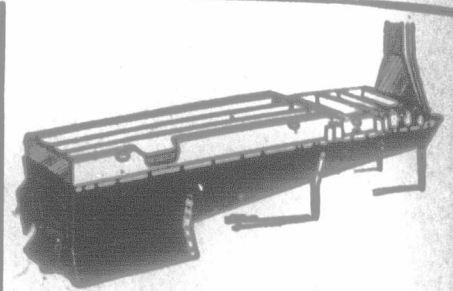


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IMPORTANT CHANGE IN TRAIN SERVICE

Train No. 27, now leaving Toronto 8.45 p.m. daily, arriving Sudbury 5.55 a.m. will be discontinued between Toronto and Sudbury after Saturday, January 3, 1914.

Train No. 28, now leaving Sudbury 10.45 p.m. daily, arriving Toronto 8.00 a.m., will be discontinued between Sudbury and Toronto after Sunday, January 4, 1914.

Toronto-North Bay sleeping car will be discontinued with this service.

Toronto-Sault Ste. Marie sleeping car will be handled Toronto to Sudbury on train No. 2, leaving Toronto 10.20 p.m. daily, and Sudbury to Sault Ste. Marie on train No. 27, arriving Sault Ste. Marie, Ont., 1.12 p.m. (Eastern Time), and Sault Ste. Marie, Mich., 12.40 p.m. (Central Time). Sault Ste. Marie-Toronto sleeping car will be handled Sault Ste. Marie to Sudbury on train No. 28, leaving Sault Ste. Marie, Mich., 2.30 p.m. daily (Central Time), and Sault Ste. Marie, Ont., 3.50 p.m. (Eastern Time), and from Sudbury to Toronto on train No. 8, arriving Toronto 9.00 a.m. Full particulars from any C.P.R. Agent, or write M. G. Murphy, District Passenger Agent, Toronto.

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 Write early for requisition forms.
 State if married couples, families or single persons wanted, also if experienced, partly experienced or inexperienced help required.
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 No charge made for securing help.

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A general change of time will be made January 4th, 1914. Time tables containing full particulars may be had on application to Grand Trunk agents.

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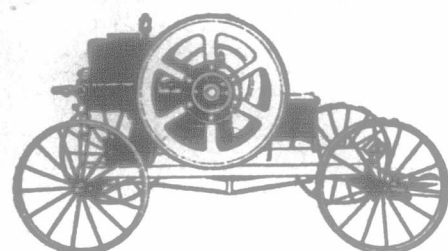
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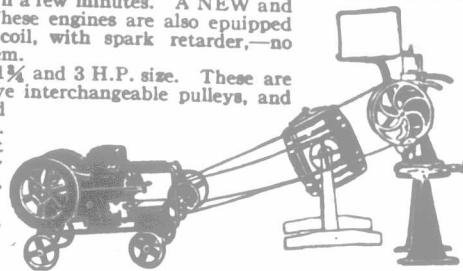
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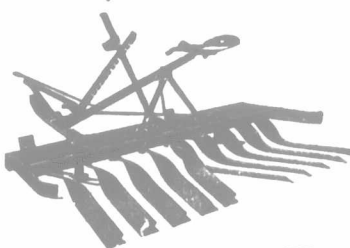


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Dr. Maria Montessori

Butter and Eggs

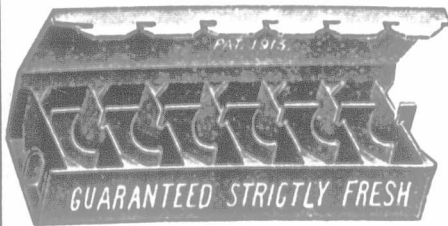


FIG. 1

**RUDD'S
Butter and Egg Cartons**



FIG. 2

**ARE SAFE, SANITARY
and ECONOMICAL
For Every Purpose**

Fig. 1.—Our patent, self-locking egg carton.
Fig. 2.—Knock-down egg carton with
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Fig. 3.—Butter carton to hold one pound
paraffined.



FIG. 3

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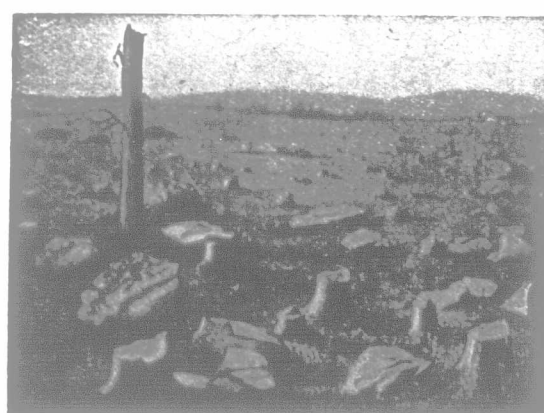


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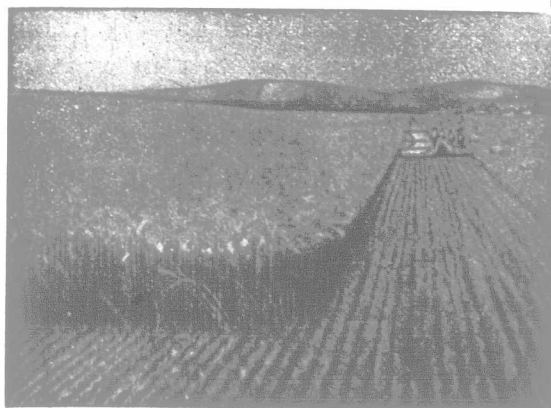
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Further particulars, samples, and prices on application. **A. FORSTER, Markham, Ontario**

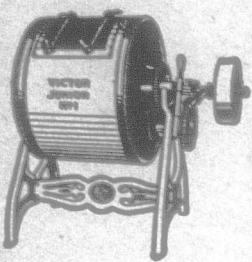
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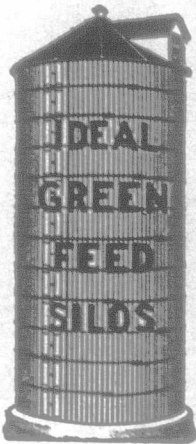
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Ask your dealer for Genasco. Mineral or smooth surface. Look for the hemisphere trademark.

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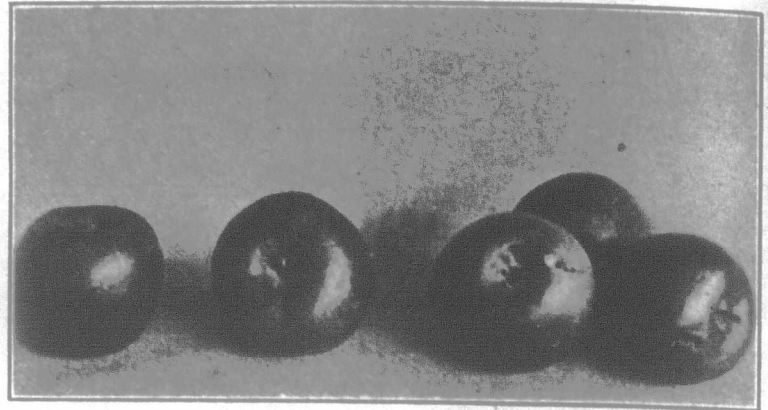
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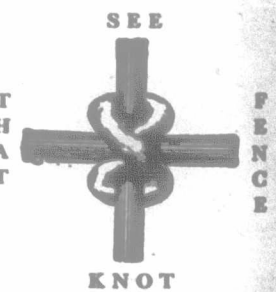
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- A Fence that is made from the best galvanized wire.
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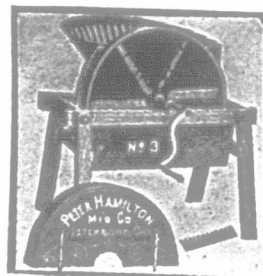
A trial order will convince you of the Superiority of Material and Construction of our Fence.

Live agents wanted in all districts where we are not now represented. Write us for our proposition.

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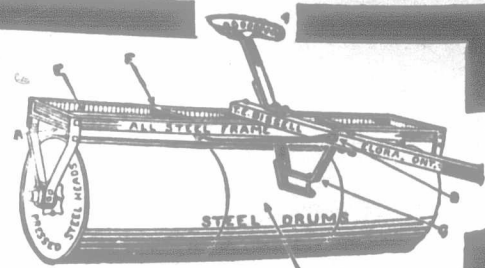
The "Bissell" is a 3-drum roller

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with a Roller unless the name "Bissell" is plainly stencilled thereon.



Grass Seed-er Attachment furnished if required. Write Dept. W for free catalogue. 63

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Dr. Maria Montessori



XLIX.

LONDON, ONTARIO, JANUARY 29, 1914.

No. 1087

EDITORIAL

The crying need of the city is more work and of the country more men, but it will take years for matters to adjust themselves.

Some of the cows will soon be freshening. Organize a vigilance committee and by careful testing catch the culls and discard them.

A good many people find the proceedings of the banking annual meetings more satisfactory reading than the deliberations of Parliament.

The young man who aspires to establish a home and a family in the city is finding the undertaking growing steadily more difficult and perilous.

Quick and easy money making is the lure of the city, but young men do well to bear in mind that if the returns of the farm are less swift they are far more certain.

Business men are "taking stock" at this season. Be one of them and take an inventory of your possessions and begin right in the book-keeping breach of farm operations.

Not how much was produced last year and at what profit but what was learned by experience to aid to greater returns in the future should occupy the thoughtful minds just now.

Farming has long been regarded as affording those engaged in it greater independence than probably any other pursuit and unless all signs fail this will be truer of the future than the past.

The winter is passing rapidly. Could you not get together one evening a week for a few weeks and discuss the problems of the community in which you live? Community discussions are often the source of widespread influence.

The Toronto News has made a strong appeal to the authorities of that city to provide work for the thousands of idle men this season in order to save them from starvation and preserve the good name of the city. The Globe joins in the request with the suggestion that the Government try to lessen immigration and take steps toward placing the people on the land. How to get them there is another story. One thing seems clear, that it is a good time for those on the land to stay there.

"Generally speaking, the farmer who can roll in wealth must either get himself into miraculously small compass or spread the wealth exceedingly thin." This and the statement that "A man is not necessarily richer because the wheat he sows and eats and the corn he feeds his hogs could be sold for twice as much as it would have fetched ten years ago" is part of a commendation of the first annual report of the new Secretary for Agriculture in the United States recently made by one of the most widely circulated American weeklies. The report in question, instead of presenting an imposing statement of the value of agricultural production, gives more space to a discussion of means for improvement in both production and marketing. Not what was produced but what might have been is the feature.

Calling a Halt.

The published proceedings at the annual meetings of a number of leading Canadian banks are reassuring in so far as they are an index of business conditions. But through most of them runs an unusually strong note of continued caution against reckless speculation and extravagance. The President of the Bank of Commerce, Sir Edmund Walker, calls attention to a point, sometimes overlooked, that in time of stringency and rising prices, the prudent suffer to some extent with the spendthrift. Human interests are so interlaced that penalties fall upon the innocent. He very properly cites the extravagance represented by motor cars, palatial houses, and social display beyond the capacity of incomes, and he might have traced the infection further among the far larger masses of people, mostly in cities and towns, who are carried away with the craze for amusement. The enormous dividends and profits harvested by the moving-picture and vaudeville show fraternity reveal what a drain is going on daily and nightly upon the resources of multitudes who take no thought for the necessities of to-morrow as long as the craving for the sensation of the hour is satisfied. In ways like these the earnings of the people are frittered away and then comes the winter appeal to the municipality or state for employment and relief.

The Parliament of Canada, now in session, would do well to heed the warning deducible from the deliverances of the bankers in regard to one of the chief causes of stringency, viz., as Sir Edward Walker puts it, "the colossal expenditure in war and armaments and for many purposes which are useless from an industrial point of view." President David Coulson, of the Bank of Toronto, in analyzing the financial situation, very properly and pointedly called attention to "the immense destruction of capital caused by the series of wars beginning with the Boer War and ending with the war in the Balkans, the large and increasing expenditure upon armaments and the hoarding of money in continental countries as a result of the distrust and uncertainty engendered." Armaments, each conceded as necessary as a sort of world police system are yet a terrible burden on industrialism and the rational policy of an enlightened statesmanship must be directed toward their reduction. This is due to humanity. What is the view of Hon. James Bryce, lately designated a member of the British peerage, to which he lends distinction? The world has no truer citizen than James Bryce, nor one whose knowledge and judgment is entitled to greater respect. He declares that the existence of immense land and sea forces upon practically a war footing increases the risk of strife and diminishes the period that would otherwise elapse before fighting could begin and it keeps the minds of nations fixed on the possibilities of war. He appeals to press and to people to throw their influence in support of the policies of peace and against those who engender strife. As a correspondent of "The Farmer's Advocate" recently expressed it, the true policy of this peaceful new land of Canada whose foundation industry, agriculture, is handicapped for men and means, is the curtailment and not the expansion of militarism and the war spirit. The good sense of this country stands for the conservation and development of the interests of the farm as never before in its history.

The Factory, the Farmer and the Cow.

Some striking figures relating to dairying were revealed at the recent Convention of the Eastern Ontario Dairymen's Association. There has been considerable discussion of late upon the changing conditions relative to Canadian dairying. Cheese factories have experienced considerable difficulty in competing with the new channels of outlet for the milk supply of the farm. The output of cheese from Eastern Canada this year was about 135,000 boxes short of that of 1912. This was accounted for by the fact that 1,600 patrons, who sent milk to factories in 1912, did not do so in 1913. When one considers there are nearly 900 factories in Eastern Ontario this does not seem such a large decrease, only about two patrons per factory, but when one looks at it from the other point of view and knows that some forty factories discontinued the manufacture of cheese entirely, the changed conditions become more convincing.

A considerable quantity of the milk and cream which otherwise might have gone to the factories went across the border to the United States. It is plain from these figures that the average dairyman is ready to sell where the immediate net returns seem highest.

One thousand six hundred patrons making the change from cheese to whole milk or cream or possibly in a few cases butter in one season is a large enough number, when only Eastern Ontario is considered, to cause some little alarm in cheese circles. If this change continues the cheese industry in a few years will have dwindled very perceptibly. There is a redeeming feature, however, there being an increased output of butter from this district of 380,000 pounds over that manufactured in 1912 and the quality of the butter was much superior to that of former years.

While good methods and cow testing have succeeded in raising the average production of the cow an analysis of the figures shows that the cows producing milk for Eastern Ontario factories average only 3,274 pounds of milk yearly or 18.2 pounds per day. What must be the loss in the feeding of some of these cows which must show a production very much below this figure? It has been pointed out that while we have fewer cows in Ontario than we had ten years ago the production has increased 18 per cent. Even though this increase in production has been obtained there is great room for improvement in most of the herds producing milk in this Province.

Three thousand two hundred and seventy-four pounds does not look like a very high yield beside that of the 10,000-pound cow and is exceedingly small when placed beside some of the yields made by cows forced to make and break records. But not considering excessive yields it should be possible to raise the average a great deal above 3,000 pounds. Five, six and seven thousand-pound cows are not uncommon in many of the good herds of this country and by a judicious selection of breeding heifers from these fairly high-producing cows and from those which make even higher records than this and which are at the present quite numerous, it should be possible if the right kind of sires are used to build up herds which would average up a great deal more than the cows of Eastern Ontario now do. It would be far more profitable to keep half the cows at double the yield. This fact was pointed out to us

The Farmer's Advocate AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL IN
THE DOMINION.

PUBLISHED WEEKLY BY
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JOHN WELD, MANAGER.

Agents for "The Farmer's Advocate and Home Journal,"
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quite recently by a successful farmer in Western Ontario, who believes in keeping good stock and keeping it well. He stated that he could keep on his own place twice as many cows as he is now doing, but that he could not do as well by them and he claims that he makes more out of half the number well fed and well cared for than he would do out of the larger number half starved and half tended.

There is room for great improvement in the breeding and caring for dairy cows. The average production has gradually increased, but with modern methods and care it should increase still further and a 5,000 or 6,000-pound yield should not be the limit. What is true of Eastern Ontario is true of Canada.

A Work Without End.

Experimental work will never be completed. One who does not understand the possibilities of this work with respect to agriculture might think that in a few years there would be nothing left for the experimenters to discover; but not so. It is only during very recent years and after several decades of the best work possible that several of the leading varieties of farm crops have been originated. It must have been a revelation to those not well versed in the amount of work that is being carried on by the Experimental Union to hear that no less than 72,495 distinct experiments were conducted during the past season alone on farms of members of the Union in Ontario. One cannot estimate the value this is to Ontario's agriculture. Behind all this and forming the basis of it stands the experimental work of the Ontario Agricultural College. Too much cannot be said in praise of the work of the men both at this college and at similar institutions throughout Canada, men who have spent their lives in endeavoring to produce varieties of crops which will out-yield any that have previously been tried. Ninety-four per cent. of the barley now grown in Ontario is said to be either O. A. C. No. 21 or Mandscheuri. A few years

ago neither was known to the Canadian farmer. They have yielded considerably more than the old-fashioned varieties and thus have replaced them. Now we are promised that O. A. C. No. 72 and O. A. C. No. 3 oats are likely to do for this crop what the two good varieties of barley have done for that cereal. Then there is the Marquis wheat, not originated at Guelph, but through the efforts of Dr. Wm. Saunders this good variety has been disseminated throughout the country. It is impossible to estimate the value of research work in varieties alone, but this is only a part of what experimenters are doing. Fertilizers are tested, different methods of cultivation tried and scores of other operations for the purpose of reaching the best methods for the average farmer on his farm at home.

All those engaged in the work should receive the hearty support of the farmers of Canada and of the Governments which supply the funds to maintain any further experimental research work in the interest of Canadian agriculture. As Prof. Zavitz, one of the greatest authorities on agronomy, said, we have too many varieties of certain classes of farm crops. Let every reader familiarize himself with the varieties of the various crops grown on his farm which have yielded highest returns in experiments at his Provincial Experiment Station and on the farms of the experimenters belonging to the Union. These results should not be passed over hurriedly, but should be studied and acted upon. Fewer varieties and better varieties would be a good motto for the granary of the average farm.

Nature's Diary.

By A. B. Klugh, M.A.

It is not very often that one picks spring flowers in bloom just before Christmas, but this was the experience of my friend, E. J. Colgate, this winter. Near Toronto, on December 14, he found the Mayflower (*Epigaea repens*) with some flowers about half expanded. This plant is the true Mayflower, a name which has been applied to many other plants in different parts of Canada. In Ontario, the Hepatica is known as the Mayflower in some regions, and the Spring Beauty (*Claytonia*) goes under the same name in other localities. In New Brunswick, the common Blue Violet is often called Mayflower.



Mayflower.

The real Mayflower is a trailing, almost shrubby, plant, with the stems, leaf-stalks and mid-ribs of the leaves bristly with rusty hairs. The leaves are oval with cordate (heart-shaped) bases, and are evergreen. The flowers are rose-colored, borne in small clusters in the axils of the leaves and are very sweet-scented. It is one of the earliest flowers to blossom in the spring. The Mayflower has a wide range in North America, being found from Newfoundland to Saskatchewan and south to Kentucky and Florida. This species is a member of the Heath Family, to which belong the Blueberries, Cranberries, Wintergreen, Rhododendron, Bearberry, and the Laurels.

A winter visitor we are glad to welcome is the Pine Grosbeak. This species, or its closely related sub-species the Rocky Mountain Pine Grosbeak and the Alaskan Pine Grosbeak range across Canada from the Atlantic to the Pacific, breeding in the coniferous woods almost up to the limit of trees, and coming into the southern portions in winter.

Like most of our winter birds its visits to any locality are irregular, in some winters it may appear early and remain until spring, or it may remain only for a week or so. In other winters it may not make its appearance at all. The adult

male of this species is a beautiful bird, being carmine red, paler on the abdomen; darker and streaked with dusky on the back, with the wings and tail dusky, edged with white. The wings have two white bars. The female and young male are ashy gray, paler below and marked with brownish yellow on the head and rump. Their length is from eight to nine inches.

While with us in the winter the Pine Grosbeak feeds upon a great variety of fruits and berries. Their favorite fare consists of fruits of the Mountain Ash, Nightshade, and Red Cedar, and the buds of Maple and Spruce. Grinnel reports them as feeding in Alaska in September on Blueberries, Rosehips and Cranberries, and in the winter on the buds of Alder, Birch and Willow and sometimes on tender pine needles.

When there has been a heavy southward migration of these birds they are usually to be seen until well on in April, and then the males mount to a tree-top and warble a rich but low and rather short song.

Speaking of the Pine Grosbeak in Alaska, Grinnel says: "One morning, the 18th of February, found me across the river skirting the Willows in search of Ptarmigan. Although it was fifty degrees below zero, a Pine Grosbeak, from the depths of a nearby thicket, suddenly burst forth in a rich melodious strain. He continued, though in a more subdued fashion for several minutes. Such surroundings and conditions for a bird-song like this! Again, one day in March, during a heavy snowstorm, a bright red male sang similarly at intervals for nearly an hour, from an alder thicket near the cabin, and as summer approached their song was heard more and more frequently. Not until May 25th did I discover a nest. This was barely commenced, but on June 3rd, when I visited the locality again, the nest was completed and contained four eggs. The female was incubating and remained on the nest until nearly touched. The nest was eight feet above the ground on the horizontal lower branches of a small spruce growing on the side of a wooded ridge. The nest was a shallow affair, very much like a Tanager's. It consisted of a loosely-laid platform of slender spruce twigs, on which rested a symmetrically-moulded saucer of fine, dry, round-stemmed grasses. The eggs are pale Nile blue, with a possible greenish tinge, dotted and spotted with a pale lavender, drab and sepia. The markings are very unevenly distributed, the small ends of the eggs being nearly immaculate, while there is a conspicuous wreath about the large ends."

Archie Bremner's Line Fence Dispute.

Canadian journalism has yet to produce a paragrapher as pungent, genial and versatile as the late Archie Bremner, for many years editor of "The London Advertiser." Older newspapermen can recall his ever ready-witted philosophy. For a long time his home was in one of the suburbs and next door resided a chronically cantankerous individual never happy except when in a scrap with somebody. One day after dinner Archie sauntered for the office with his old silk hat tilted at the regulation angle. But neighbor "Bone" was lying in wait for him leaning over his front gate.

"Mr. Bremner, are you aware that your line fence is two inches over on my lot?"

"Well, no, to tell the truth, I hadn't noticed that," was the diplomatic answer.

"It is then, and I want to know what you are going to do about it?"

"Well, now," observed the imperturbable Archie, lifting his pipe from his mouth, "if you are going to move the fence just put it full six inches over on my lot and then there'll never be any chance of trouble."

And there never was. Neighbor "Bone's" wrath flattened out more quickly than it had risen and he discovered a sudden engagement back in his own onion patch.

Living Up to Its Name.

I am very much pleased with the stand you take for the farmers. You certainly live up to the name of your paper, "The Farmer's Advocate."

Lambton Co., Ont.

JAMES BROWN.

The large cities are this winter swarming with the starving unemployed, but they decline to go to the country where there is untold work undone, wages and food. Many of them might be of little use on the land and not a few, like the traditional tramp, are looking for work but praying that they may not find it—unless of a certain kind.

Dr. Maria Montessori

THE HORSE.

Fix the Fee, or License the Stallion.

Editor "The Farmer's Advocate":

As you have kindly left your columns open for discussion on the Stallion Act, I may say, as the Act exists at the present time, I consider it of no benefit, and in regard to inspecting and grading stallions I cannot see how it would be of any benefit. Every stallion that is out for service is inspected by breeders before he is used, and by some extra good horsemen, so no doubt the Government Inspector will have his work carefully looked over after him, and if the stallion is a good stock horse he will make probably a better grade number for himself than the Government Inspector would give him. I cannot understand how any man, let him be ever so good a judge, can walk up and look at a horse and tell what kind of stock that horse will produce and give him his just rights in a grade number, and now I am unfortunate enough to be in the stallion business, and have invested a large amount of money in high-priced, imported stallions, and also have at the present time a grade stallion, and I see that some of our brother horsemen call the grade horse the scrub. He may be, and mine may be, but I will further say that he is no scrub stock getter, which I will leave to the breeders in the district through which he travels, and has travelled over one route for four years and his business has increased two-thirds, and I believe him to be good for four more years or more on the same route. We do not have to come to the grade horse altogether to find scrub stock getters, as there are plenty of scrub sires among the registered stallions as well. If the government can find men that are wise enough to go through the country and inspect stallions and can tell just what kind of stock each stallion will throw, so as to give him justice in his grade number, I will say, send them along. For my part I think it is nonsense.

I have read different horsemen's opinions on the subject, and I must say that I think Dr. T. H. Hassard, York Co., Ont., has the most reasonable remedy. Let the government fix a certain service fee of not less than twelve or fifteen dollars, or put a license on every stallion that is offered for service of not less than say \$10.00 for his first year, \$25.00 for his second, and \$50.00 each year thereafter. Let him be grade, scrub or registered and make it compulsory, for it would not be of any use if it was not, and let the breeder do his own inspecting. Then if the stallion was a good stock horse and a sure foal getter he would be well able to pay his license fee, and if he was not a good one the breeder would soon turn him down and he would be unable to pay his way, and would soon put himself out of business. I consider the scrub horse is the sire of scrub stock regardless of his individuality.

I do not want you to think that because I am the owner of a grade stallion that I think all stallions should be grades. I would much rather mine was a pure-bred, for any man knows or should know that breeding to a grade sire is a very poor method of improving his stock. Now, as Mr. Hassard has said in your issue of Jan 8th, we understand the Government intends taking some further action at the coming session, and I think the horse breeders and stallion owners especially, when it is a branch of their business, will be slow if they stand back and have nothing to say, and let the legislators patch up an Act which is only a bill of expense to us and no benefit whatever.

Lincoln Co., Ont. E. E. HANNIGAN.

The Breeder Should Inspect.

Editor "The Farmer's Advocate":

In looking through "The Farmer's Advocate" I was pleased to see so many giving their views on the Stallion Act. As the Act now exists I don't think it is worth the paper written on. Some of us paid our seven dollars to have our horses inspected and enrolled, while others went on with their business the same as usual. Every scrub stallion that travelled at all surely did business enough to pay \$2.00 for enrolment, and which leaves him on the same footing as the horse that cost \$1,500 or \$2,000 and can be run at a much smaller fee which does cut some ice no doubt. Now, I think it is a great injustice to some of us that have risked our own money in a good imported stallion and then have to pay men to come around and inspect them. I wonder who inspects them when we are putting our money in them, and if the men that are going to use them cannot inspect them, I don't think the government can do so. Any good sire will soon need no inspection, his get will set his value. If he does not get good colts it matters not if you had ten seals on his route bills you could not make the public use him.

Carleton Co., Ont. T. A. HAND.

A Monument to Enrolment.

Editor "The Farmer's Advocate":

I noticed in the issue of Dec. 25th, 1913, of your valuable paper that facts and opinions of horsemen are invited on an Act which took several years to get passed by the best horsemen of Ontario, and which we are told is patterned after one now in force in Australia. If the draft horses of Ontario will not compare very favorably with the product of any of the States or Provinces now governed by a "Red-Tape System" and the horse-breeding industry is in jeopardy, then some radical revision is needed, and I would suggest that the grade or mongrel stallion, the unsound mares and the scrub bulls might as well be included, and be restricted from reproducing themselves. But I would say it would seem like a harsh measure to prohibit a good specimen of stallion that lacked a cross or two of being eligible to record, or a cross-bred horse that was proving himself a good sire, and permit an imported or registered cull that would not make a good gelding, free to go on the road and carry a government recommend even though he was able to pass an examination for soundness. I do not consider the government has any right, as some suggest, to buy the mongrel or scrub horses or to remunerate their owners. They are worth as much money after castration as before sold under the hammer at any repository.

If the government appoints the inspectors they should also pay them, grading the stallions 1, 2 and 3, as some suggest, as to quality of individual, soundness and breeding, surely the most important point is being overlooked. A stallion that would grade No. 1 as a stock horse is of vastly more value to a community than one that would grade No. 1 individually and sire a number of weedy colts. Then, if all the stallions are graded 1, 2 and 3 that are now in Ontario, the doors should not be left wide open to the importers, and everything in their hands should

public benefactors sink into oblivion without the residents of Ontario knowing who they were, and if all the space is not taken up by all means have the names of the gentlemen responsible for the presence of the English sparrows in Canada also inscribed. If any of the supporters or promoters of the Enrolment Act can point out where anyone, with the exception of the inspectors and enrolment board, has been benefited to the extent of \$1.00, then I will take back everything said and acknowledge I have been looking at the wrong side of the picture. A meeting should be called in every county, and the representatives in Parliament have the wishes of every horse owner and everyone interested placed before them.

Middlesex Co., Ont. ARTHUR F. O'NEIL.

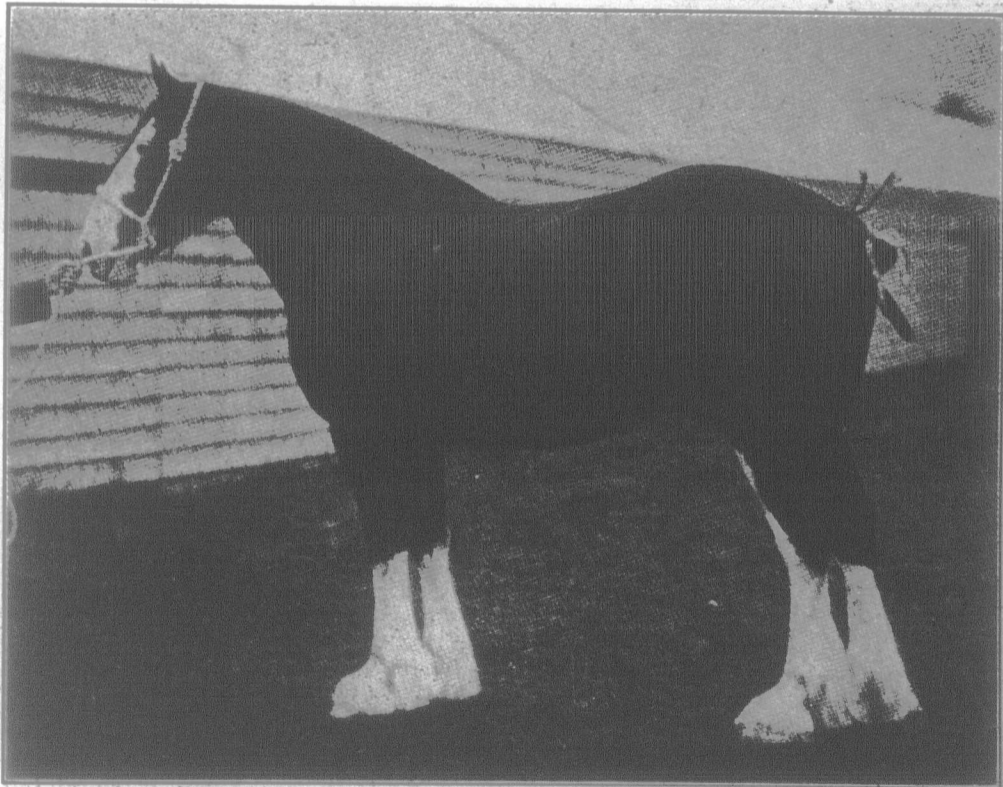
Weed Out the Scrubs.

Editor "The Farmer's Advocate":

I have noted with interest the communications re stallion enrolment, and although not wishing to be identified with all the opinions expressed would say that I will readily endorse the most conspicuous of them all that the Act, as it now stands, is not effective. I was led to understand that the underlying motive of the Provincial Government in constructing the Act was to raise the standard of horse breeding to a higher plane, but how this end is to be attained by simply compelling stallions to hand over a two dollar bill in return for which they receive a piece of paper with the name and breeding of their stallion printed on is more than I can understand. A horse may be a common grade scrub or he may be blemished and diseased, and still be allowed to tramp our concession lines humbugging the farmers and leaving his trail of progeny behind.

If the government wishes to improve on the existing standard of our horses, why does it not make inspection compulsory, cutting out all

horses that are not pure-bred and registered as well as those pure-breds which are found to be unsound, and grading the sound pure-breds according to qualifications such as conformation and quality of feet and limbs, etc., in classes one, two and three, and seeing that all bills and other advertising matter gotten up by the owners bear such classifications. It seems to me that the crying necessity is the extirpation of the grade. Some, of course, will say that there are grades of greater breeding value than pure-breds, which may be true in exceptional instances, but it will doubtless be found that such a grade is the offspring of an excellent pure-bred.



Anice.

A prizewinning Clydesdale mare in Scotland.

be graded and branded, and every horse that would not come up to the standard of No. 2 be excluded. Surely Ontario with all the imported and Canadian-bred registered mares already here could supply all the No. 3 horses required. If protection is good medicine for our manufacturers a small prescription would not hurt our Ontario breeders.

The Enrolment Act somewhat resembles the Education Department some years ago when desiring to raise the standard of the teaching profession in rural districts (with a growing demand for teachers in the West) they practically debarred the poor man's child from earning a livelihood in that profession, and which to-day has placed in the hands of the teachers the opportunity to demand a salary of \$1,000 instead of \$500 to \$600 without any alternative, and have sidestepped so often that both feet are badly burned. The only fair redress to dissatisfied stallion owners, if compulsory inspection and grading becomes law, would be to allow the stallion owners the choice of one of the inspectors, the enrolment board one, and these to pick a disinterested third man. One more suggestion, if the \$18,520, part supplied by the government for the inspection of stallions some years ago and the balance collected from the stallion owners last spring, is not at present all absorbed I think a monument should be erected in Toronto, the birthplace of this Enrolment Act and the names of its promoters inserted thereon. It would seem too bad to let the names of our

Some will agree that there is no need for Government interference, that farmers should be left to choose at their own discretion the stallions with which to cross. Before we are guilty of such gross rashness we should stop and consider that Ontario is not the first, by any means, to propose the improvement of the horse by legislation. The western provinces as well as the leading horse-breeding states have taken the lead, and if Ontario wishes to keep pace with the progressive districts she must be progressive too.

As to leaving the farmers to choose for themselves the kind of horse to use, such a course would seem to me as ridiculous as placing prisoners behind prison doors that were left unlocked. It is almost impossible to find a practical and successful horseman who will use or recommend for use a mongrel-bred sire, yet there are scores of farmers who, through indifference or to save a few dollars in service fee, will breed their mares to almost anything that comes along. As foals from good, pure-bred sires sell anywhere for much bigger prices than do foals from either grades or inferior pure-breds, the government in undertaking such a scheme, whereby this class of horses will be exterminated, will prove a benefactor and not a malefactor to the farmer horseman.

Let the government make inspection compulsory, inspection that will inspect, that will cull out the dross, and let them send the inspectors

at the government's expense, then it will be safe to predict a phenomenal advance in a few years in the quality of our horses.

R. O. LAWRENCE SCRATCH.
Essex Co., Ont.

Stop the Grade.

Editor "The Farmer's Advocate":

Since reading the letters in "The Farmer's Advocate", regarding stallion inspection and enrolment, as a new one in the business I would also like to give a few of my opinions. So far I think the Act has only partly finished the work it started out to do. In this vicinity it has driven two grades out of business, but there is still one at large doing business at the rate of ninety mares a season. This latter trade might better have been given to a good registered horse, travelled at the same fee of \$15.00. Of course, this horse is enrolled and inspected and also approved.

The part of the Act that "gets me" is why a government, setting out to improve the horses of this province, should tax all stallion owners \$2.00 for enrolment when every other branch of agriculture is being advanced by experiments at great cost to the government. Let them also pay for horse experiments, which no doubt would like others prove expensive, and yet it would likely have as good effect as experimenting on some other lines. My idea is that it should drive every grade stallion off the road, thereby compelling his owner to buy a pure-bred horse which would benefit the public and also the owner in the long run.

How would it do to have the Act amended in such a way that when an entire colt is registered his pedigree or registration certificate would be also his enrolment certificate? This would shut out all grades, but would still leave the pure-bred scrubs, not uncommon either, to run the roads with free grace. Yet I consider a pure-bred scrub better than most grade stallions if only for the breeding being pure, with which he is more likely to produce a finer specimen of his breed. I do not believe that the government will ever be able to control the horse-breeding industry to any great extent until they own all the horses.

Like all other stallion owners I have cast my seven dollars to further the cause, and so far have received only a receipt for it and have the privilege of saying he is enrolled, and that I fulfilled my obligations regarding the Act. It does not seem "value received" for the money nor yet will inspection, with its chances in the hands of these appointed men, really seem seven dollars' worth.

As for a standard to grade all pure-breds by it would be next to impossible, as has been proven at the various exhibitions held throughout the province, when difference of opinion is always shown. So if the Act protects pure-breds from competition with grades it is about all that can be expected, and the mare owners should judge the pure-breds.

Wentworth Co., Ont.

A. J. FRANCIS.

Horse Stable Construction.

At this season, when doubtless many are planning to build a horse stable, or remodel an old one, a discussion of the matter may not be considered out of place or untimely.

Many horse stables, both new and old, are built in a portion of the basement of the barn, and if properly arranged give good satisfaction. Where expedient, we think greater satisfaction is given where a special and detached or semi-detached building is erected. We will discuss the matter with this ideal but so far as the internal arrangements are concerned the same can be carried out in either.

The site should be selected with a view to con-

venience and easy drainage. Some think that the horse stable should be at considerable distance from the other outbuildings, as in case of fire in either the other might be saved. This, of course, results in lack of convenience in procuring bedding, feed, etc., and also in loss of time, as when all buildings are connected it requires less time to attend to all the stock, and for these reasons many decide to have the buildings attached. The material to be used will depend greatly on local conditions and the amount of money the builder intends to spend upon the construction. In most cases wood is used, but brick, concrete or stone make a more imposing and probably a more durable building. If brick be used, the wall should be about 16 inches thick, with an air space. If concrete, it should be in blocks with air spaces. If stone be used, it is practically impossible to leave an air space, and in order to get one it is necessary to cleat and line it inside with lumber to provide one. An air space in the wall tends to lessen the accumulation of moisture upon the walls, thereby avoiding the disagreeable dampness so often noticed in cold weather. Of course, if ventilation be perfect, there is little tendency to this trouble, but it is practically impossible to get perfect ventilation. Whatever material is used, the walls should be carefully built with the idea of warmth and comfort. If a stable could be so constructed that the temperature would remain, in all kinds of weather, between 40 and 60 degrees Fahr. it might be said to be perfect in that respect, but we don't think this possible without artificial heat in cold weather and some system of fans in hot weather. Whatever material is used, the foundation should be of concrete or stone.

The question of size must, of course, be determined before the plans can be drawn. The necessary size will depend not only upon the number of horses to be accommodated, but upon the accommodation these are to have and the manner of arranging the stalls. Where space is to be economized, a row of stalls can be made on each side with the horses facing the walls and a passageway of at least eight feet between. When space is not so valuable, a passage of, say, five or six feet for feed, etc., is left; then a row of stalls with the horses' heads facing this passage and a space of eight feet between the stalls and the opposite wall. The first system is not so handy, as all food and bedding must be carried from the passage way up to the horses (as we do not think that feeding hay from above into racks or mangers should be considered), and this in addition necessitates more sweeping and dusting in order to keep the passage clean. Where space will admit, we favor the second plan.

Having decided the number and arrangement of the stalls required, we must decide the kinds and size of the stalls. As regards kinds of stalls, we consider only two, viz., box stalls and single open stalls. Double stalls made to accommodate a pair of horses should not be considered, as it is unsafe to tie two horses in one stall. They may agree for years, but at any time something may occur to excite them and they will fight with mouth and heels, often with serious or fatal results. In considering stalls, the value of space again appears. Any horse, young or old, light or heavy, work or pleasure horse, will do better and be more comfortable in a box stall than tied in a single one, but, while we recognize the impracticability of providing a box stall for each horse, we wish to emphasize the fact, that no stable can be aid to approach completeness without one or more box stalls—more if possible, but at least one. It is necessary in case of sickness, lameness, or in any case where a horse accustomed to regular work is to have a few days of idleness. In the latter cases, it has a great tendency to prevent diseases of

different kinds that are liable to result under such conditions unless the amount of food be materially reduced. When in a box stall, a horse takes considerable exercise, which, when he is healthy, idle and well fed is necessary in order to retain health. It is convenient for the pregnant mare during the winter months, and necessary during the later stages of pregnancy, and especially necessary during parturition, and afterwards until the weather will permit of dam and foal being left on pasture.

As regards the size of box stalls, we may say they cannot be too large, the larger the better; ten by twelve feet is a fair size; even eight by eight feet is much better than none.

Single stalls may be too wide, in which case there is a danger of the horse rolling and becoming halter cast. At the same time they may be too narrow, which leaves too little room for the groom to do the necessary work beside the horse in the stall, and also prevents the horse from lying in comfort. For ordinary-sized horses, stalls should be at least five feet wide and not more than six feet. Stalls built for very small or very large horses may be smaller or larger according to their specific purposes. The stalls should be about nine feet deep, exclusive of mangers, and the partitions should be strong and about seven feet high, especially in front, and may slant backwards to four or five feet. The ceiling should be nine to ten feet high. Having decided upon the number, kinds, sizes and arrangement of stalls and passages, the necessary size of the building can readily be determined.

VENTILATION.

Ventilation is a very important point that in many cases gets very little attention and is more a matter of accident than of plan. In mild weather, ventilation is not difficult, but in cold weather it involves a question of temperature. Provision for the removal of contaminated air and for the introduction of fresh air into the stable, which air must be artificially warmed either before or after its introduction, must be made. Perfect ventilation consists in the removal of foul air as soon as it is formed and at the same time replacing it with an equal amount of fresh air at the required temperature. This is practically impossible, and we must be satisfied with something less than perfection. When air is warmed it has a tendency to expand, hence it becomes lighter and ascends, and is replaced by cooler air, which either descends from above or is introduced from below. The heat from the bodies of the animals and the air expelled from the lungs warms the air in immediate contact with the animal, hence this air ascends and if arrangements are correct will escape from the stable. The problem then is to introduce fresh air without drafts and without materially lowering the temperature. As heat expands the air, it necessarily follows that the spaces or openings for its escape from the stable should be somewhat larger than those through which the fresh air is admitted. It is estimated that it requires about 25 square inches of space to allow entrance for sufficient air for each horse and that the space allowed for exit should be about one-eighth larger. It would not be wise to make an inlet and an outlet for each animal; at the same time a number of each gives better results than one of each which by the estimate would be sufficient for all. There are many different systems of ventilation. One system to raise the temperature of the air entering the stable is to conduct by an underground pipe for a considerable distance before reaching the stable. This system, on account of the cost and the fact that unless there be a wind to force air into the pipe through the cowl that stands up a few feet above ground at its commencement, insufficient air will be introduced, is not often adopted. In most cases there are several inlets on each side of the building, two to three feet above the floor. If the building be brick, stone or concrete, these are generally of tile; if a wooden building, they are also of wood. The total capacity of these inlets is much greater than the space actually required and they are arranged with shut-offs, so that if the wind be strong those on the windy side can be partially or wholly closed and the necessary air can enter through those on the other side. So far as the outlets are concerned, it is wise to figure about what capacity is needed and divide this into as many as is considered necessary. These are made of lumber, and placed along the walls and in the ceiling. Those along the walls should have an opening three or four feet from the ceiling and another at the ceiling. In some cases, several of these pipes are conducted to a common centre just below the ridge of the roof, where an opening of sufficient size extends through the roof, and, of course, is protected by a structure built on the ridge and arranged with slats so placed that while it allows escape of the air it will not allow too free entrance of air in case there be a high wind. Probably the better plan is to have each pipe open individually just under the eaves. This practically prevents the en-



Horsemen at the Recent Guelph Winter Fair.

Dr. Maria Montessori



Sheep Breeders at Guelph, 1913.

trance of cold air, as it is practically protected from the effects of wind. As stated, there are many systems of ventilation, but all are designed for the same purpose, and many differences of opinion exist as to which give the best results.

DRAINAGE.

The site of the building is supposed to be such that drainage from the outside is natural or easily provided. The removal of liquids from the inside must be then considered. In most cases, this is left to soakage of the bedding, and removal by fork or broom; and when we consider that this gives reasonable satisfaction and that any regular system of drainage is expensive and demands a lot of attention, we may be inclined to trust to the former. A system can be arranged by having iron troughs behind the horses, they being covered by perforated iron flat pieces on a level with the floor. The doors of the box stalls being hopper-shaped, with a grating in the centre through which the liquids are conveyed into iron pipes, which, with the troughs, incline to a given centre, from which an iron pipe which passes out of the building and empties into a cesspool, from which the liquid can be pumped into a wagon tank and drawn to the fields and used as a fertilizer. When this system is used, it must be flushed out occasionally and the perforations opened up, else the whole system will become clogged, as the flow of fluids is not sufficient to carry with them the solids that enter.

FLOORS.

Few horsemen will deny that wood is the best material for a horse to stand and lie on. Bricks and stone are very hard on the shoes and it is impossible to keep horses sharp-shod in winter-time, and if he has the habit of pawing he is very liable to injure his feet. In addition, unless bedding is plentifully supplied, floors of this kind are uncomfortable to lie upon. Cement floors have largely the same objectionable points, and in addition are very slippery. Earthen floors are probably the better for the feet, as they provide a certain amount of moisture, but it is not possible to keep them dry and clean and avoid odors and filth, and if the horse paws or stands largely in one place it is not possible to keep it level. The ideal stable floor consists in a cement floor deeply creased in both directions in the passageway; the floors of the single stalls about two inches higher in front than behind and then covered with plank; the cement in the box stalls also given a slight incline towards the passageway and covered with plank. The incline in either stall should not be greater than sufficient to ensure the liquids running towards the passage. Have the floors as nearly level as possible.

LIGHT.

Many stables are poorly lighted. There should be a sufficient number of windows to light all parts thoroughly. A number of small windows is probably better than a few large ones. They should be on both sides of the stable, so high that when the sun shines the rays will not strike on the horses' eyes and so arranged that they can be partially or wholly opened, either by sliding into the wall or hinged at the bottom, so that they can drop inwards to allow entrance of air and wind and when those on both sides are opened will create a draft that tends to lower temperature in hot weather and at the same time the draft so high that it will not strike the horses.

MANGERS.

There is no question about the fact that the

ideal manner of feeding both grain and hay is off the floor, but so far as grain is concerned this is not practical, as in order to do so a movable grain box must be used and when placed before the horse with grain in it an attendant must be on hand to remove the box when the grain is eaten, else the animal will in all probability paw the box and probably hurt himself and at least soon destroy the box. It would prove very inconvenient to have this attendant always on hand, thence it is necessary to have a stationary feed box at the proper height. As regards hay, it is different. If the horse be fed only the amount he will eat, he will soon learn that he must not paw it back under his feet, but if given more than he wants, he will, of course, render the remainder unfit for the next meal. Most teamsters are not satisfied unless their horses have hay before them at all times. This is a mistake, but a fact nevertheless, and on this account it is probably wise to have mangers in single stalls. Elevated racks of any kind are undesirable; a horse should not need to elevate his head to reach the hay. Mangers should not be higher than the horse's breast and should not be so deep as to render it necessary for him to cause pressure upon his breast in order to reach the bottom of the manger with his mouth. At the same time they should be boarded to the stall floor; no place should be left at the bottom into which there would be a possibility of him getting his feet while rising or under any conditions, hence there should be a false bottom in the manger, better if this be made of slats and removable, so that it can be lifted, and the seeds, dust, etc., that have passed through the slats, removed. In horse stalls, there should be a stationary box for feeding grain, but there should be no manger or rack for hay. Here the animal can follow the hay, and if not given much more than is good for him, there will be no waste.

WATER.

A system by which good water can be kept before the horses at all times is advisable, but

if this is not practicable, there at least should be a vessel containing good water so placed that they can get a drink when either entering or leaving the stable.

PLACE FOR HARNESS.

The ordinary system of hanging the harness in the stable behind the horses or on the stall posts is convenient, and while it gives reasonable satisfaction it is better to have a dry and well-ventilated compartment outside the stable proper or even a closet in the stable. This protects the harness from the moisture and the gases that form, especially in poorly-ventilated stables. Both the leather and the mountings continue to look better and will last longer under these conditions. While probably the convenience of the ordinary method may warrant its adoption for the work harness, there certainly should be a separate compartment in which to keep the good harness, whether heavy or light. While we don't claim to have suggested anything new in the construction of horse stables, nor that the ideas we have given are the only good ones, nor even the best, we hope that they may cause prospective builders to think and acquire the knowledge they can before adopting plans.

WHIP.

LIVE STOCK.

Ventilation and Lighting of Modern Barns.

Editor "The Farmer's Advocate":

The two all important subjects of light and ventilation seem to be a byword in this Province of ours. During a short tour through Western Ontario lately, the writer was surprised at the lack of proper ventilation and sanitation of farm buildings of all kinds. On entering some of these barns, on a cold morning, one is almost overcome by the sudden change in temperature, usually far above what it should be, or correspondingly lower than what is right. If there should happen to be two doors in the stable, one often finds a pile of manure banked up to keep the frost out, a system that should be strongly condemned wherever met. Windows, which are never cleaned from one year's end to the other, cobwebs, etc., and dust galore on every beam, yet people are surprised that animals do not grow faster, even under these adverse conditions. It is interesting to note that 600 to 800 cubic feet of air per hour per cow is the amount required to keep the air fresh, and the writer ventures to state that in fifty per cent. of the barns in Ontario this amount is impossible and in some cases impracticable. Modern up-to-date farmers are seriously considering this problem and trying to improve matters in this respect. Old barns, of course, are difficult to work with, but even if new windows were installed, with the upper sash hinged to swing in, thereby doing away with any fear of direct draft on animals, it would be better than none. This system of ventilation is crude, the cold air receiving an upward thrust, tends to condense on ceiling, and causes dampness, which is to be avoided.

One often finds three-inch or four-inch tiles placed in cement walls about ceiling level, and often in winter these are stuffed with straw, doing away with any usefulness that they ever had. This idea of intake by hinging windows is all right up to a certain point, but in the majority of barns no precautions are taken for outlet other than, possibly, a hay chute, which in winter is



Some Swine Breeders Who Exhibited at Guelph.

usually clogged with hay, and even if not, its area is usually of such a size as to negative any usefulness it may have. In all cases, the beams or joists should be celled with tongued and grooved lumber, especially underneath drive floor, if any, as an open floor forms all kinds of outlets. Doors and windows should also be well fitted, made of good seasoned lumber, primed and

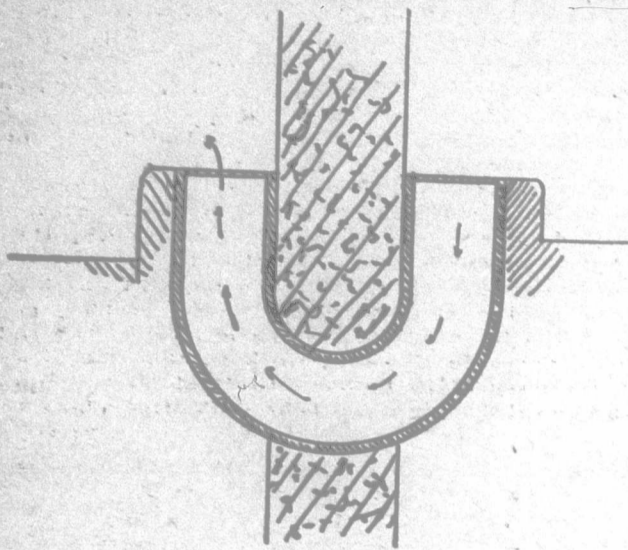


Fig. 1.

Painted, and replaced every two years. This will be found to be an economical idea, instead of otherwise.

The subject of cleanliness may be an old one to preach, but nevertheless it loses nothing by being repeated. Theoretically speaking, from the amount of impurity added to the atmosphere by animals, each cow or horse, as the case may be, would require 3,000 to 7,000 cubic feet, but this amount is not required. In practice, 1,000 cubic feet should be the amount aimed at; in most

lighter, then rising as colder air rushes in, causes circulation all the time.

This now brings us to the question of outlet. The section of barn, Fig. 3, shows probably the best position for these. In barns, such as dairy barns, their outlet should be four feet from centre of barn, and zig-zagged, as in plan; that is to say, no two outlets should be directly opposite each other, but one every so many feet.

The abridged plan, Fig. 4, will show more clearly what is meant. The outlet flues are constructed of two layers of sheeting, with tar-paper or other air-tight composition. The main wall is composed of 1-inch lumber, as tightly fitting as is convenient with rough lumber, then a layer of tar paper is put on, and care must be taken to overlap well at joints, then finish with good tongued and grooved lining, making as airtight as possible. This outlet terminates at roof in a ventilator of approved design. There are many of these ventilators on the market, but I would advocate one with movable cowl on top (Fig. 6), varying according to direction of wind. Several of these are preferable to one large immovable ventilator. As previously stated, 28 square inches per head of outlet is the theoretical amount of air required, but 20 to 24 inches is practically all that is required, so that it is an easy matter to calculate one ventilating outlet for each pair of intakes, or possibly one of sufficient area to three intakes, etc.

Another great feature in sanitation is the one of light. In looking at some of the older barns, one is inclined to think that the idea was that darkness was necessary to improve health in stock. Fresh air and sunlight are two of the greatest opponents that tuberculosis has, and it is only right in this enlightened age, to try and live up to these ideals. Four square feet of light is deemed necessary for each cow, so if a 3 feet by 4 feet window is installed for every three cows it will improve matters. My rule is to have a three-foot-wide window every six feet, thus mak-

ing a three-foot butt of concrete or stone between each pair of windows. Windows should be designed with as few astragals as possible, as every unnecessary astragal means just so much more space for dust to collect. Sills of windows should not be brought out square, but finished on the angle or round as per illustration No. 5, and also all rybats or jambs rounded, or splayed, if at all possible. It certainly means a little more labor at the time of erecting, but pays in increased distribution of light.

The question of lime or whitewashing is so often dealt with that it is unnecessary for me to go into this fully, but I may state in passing that, in most countries where sanitation is a feature of the dairy business, it is compulsory to have the walls and ceilings washed at least once a year. The following is a good recipe for a wash and will not rub off: Dissolve two pounds

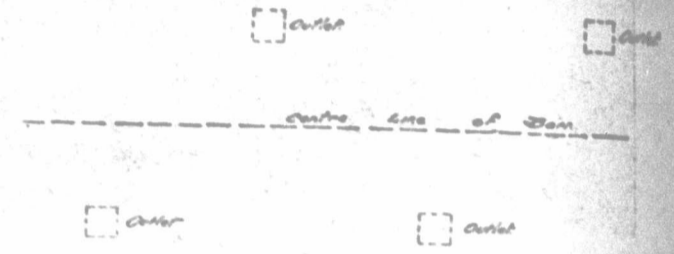


Fig. 4.

of ordinary glue in seven pints of water and when all is dissolved and six ounces of bichromate of potassium dissolved in a pint of hot water. Stir the mixture up well, then add sufficient whiting to make it up to the usual consistency and apply with a brush in the ordinary manner, and as quickly as possible. This dries in a very short time, and by the action of light, becomes converted into a perfectly insoluble waterproof substance which does not wash off even with hot water, and at the same time does not give rise to

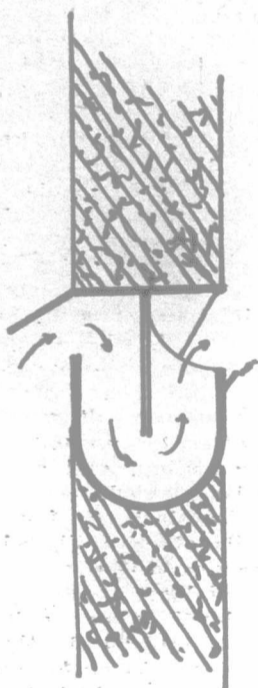


Fig. 2.

cases, however, 800 is deemed sufficient. Fourteen square inches of intake and twenty-eight square inches of outlet per head is probably the maximum, and for all practical purposes ten inches to twelve inches of intake and twenty inches to twenty-four inches of outlet will be sufficient. On this basis, an eight-inch inlet pipe, as in Fig. 1, would supply sufficient air for three animals. Fig. 1 shows an inlet built of either tile or iron pipe and put in when wall is being constructed. Wire guards are provided at either outlet to prevent either snow or rubbish falling and interfering with intake of air.

Another, and possibly a better intake, is being constructed by a well-known firm, whose advertisements I have seen elsewhere in this magazine. It is composed of galvanized iron and, theoretically, one of these ventilators is sufficient for three cows. Built in the wall, with bottom of ventilator at floor level, as in Fig. 2. This is a much superior intake to that shown in first sketch. The main advantage is, the snow does not drift in so much, thereby causing obstruction to draft, it is easier to instal, does not have the same projection into passages or outside wall, and is practically indestructible with ordinary care. This system of having the intake pipes close to the floor is, in the opinion of experts, the best. The cold air being heavier, keeps close to the floor until diffused with foetid air, which being warmer and correspondingly

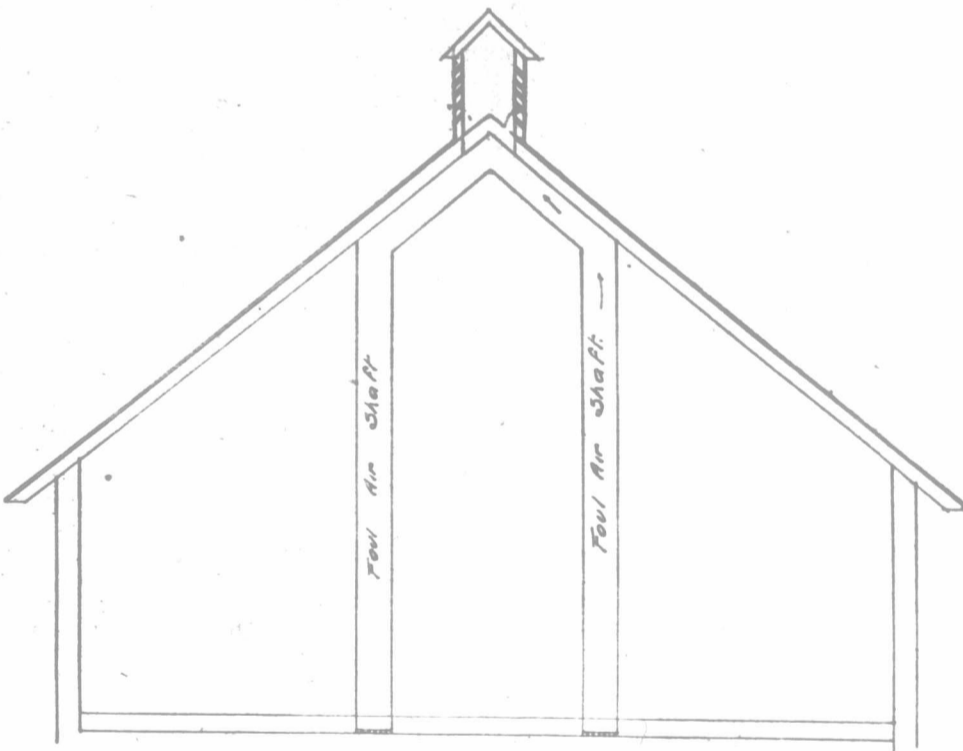


Fig. 3.

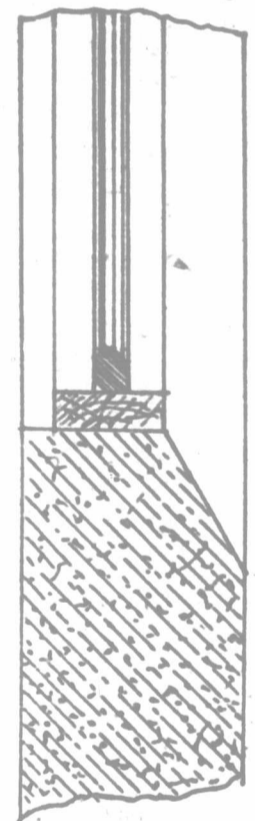


Fig. 5.

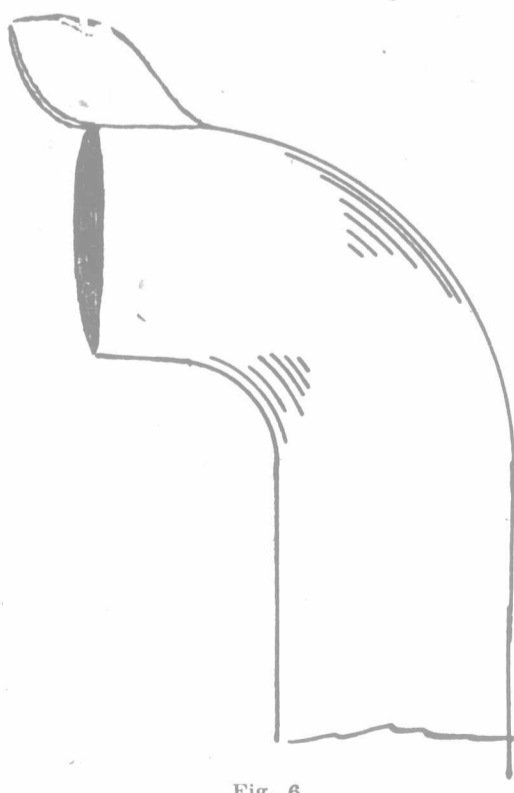


Fig. 6.

mold growth as whitewash made with size often does. It may be colored to any desired shade by the use of a trace of eniline dye, or powder coloring, while by the addition of a small proportion of calcic sulphite its antiseptic power is much increased. JOHN C. COLTHART, Wellington Co., Ont.

Our English Correspondence.

ENGLISH LIVE STOCK TOPICS. The English Fat Stock Show season of 1918 proved a veritable march of triumph for the Aberdeen-Angus breed of cattle and its crosses. Scarcely a show of any importance passed which did not see Aberdeen-Angus animals or crosses of that breed occupying the place of honor, and to a greater degree than ever before perhaps has the cross between Aberdeen-Angus and Shorthorn lines of breeding dominated the cross-bred classes at the various shows. The greatest triumphs of all were secured at the London Smithfield Show. A pure-bred Aberdeen-Angus heifer was champion of the exhibition, and a black polled heifer by a Shorthorn sire and out of an Aberdeen-Angus dam was reserve. Then the best steer of the show had in him a good deal of Aberdeen-Angus blood, while the reserve to him was a pure-bred Aberdeen-Angus. A blue-grey by an Aberdeen-Angus bull won the championship for the best yearling, and a pure-bred Aberdeen-Angus was reserve. Then as regards the carcass competition

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the championship went to the carcass of an Aberdeen-Angus heifer, pronounced by butchers to be as near perfection as is ever likely to be attained. The depth of roasting meat was extraordinary. The dressed carcass weight was 65.4 per cent. of dead to live weight. The reserve for the championship went to the carcass of a cross-bred bullock combining Shorthorn and Aberdeen-Angus blood. At Smithfield Show in the various classes for cross-bred cattle there were in all seventy entries. Of these no fewer than fifty combined Shorthorn and Aberdeen-Angus blood, while Aberdeen-Angus blood was also shown in combinations with Devons, Red Lincolns, Sussex, Red Polls, etc., on the block. The butchers who bought the Smithfield champion and killed it for their customer's consumption made the following report: "Very full of meat of excellent quality."

Obviously it is early maturity which is doing it. The days of slowly grown meat are quickly passing, and early maturity is the great aim of all enlightened stock keepers. By early maturity is meant the capacity of stock to be ready for the butcher at a much younger age than formerly. The advantages of it are substantial, namely, the great saving in food and expense owing to the reduced period of fattening; the securing of better prices by the animals being ready for the market early; the quick turnover of money; and having the space the stock occupied available for other animals.

Early maturity is promoted in stock partly by management and partly by heredity. Breeding from stock at a younger age than usual, and feeding the progeny particularly well from birth, come under the first category; and the second consists in selecting the males from breeds noted for their capacity to mature early. It is not difficult to ascertain what breeds of sheep and cattle mature early, but one cannot select a ram or bull for use in the flock or herd merely because it belongs to a quickly maturing breed, as it may be unsuitable in other ways for crossing with the animals in question. It has to be considered from what breed it will be advisable to have a sire in order to transmit his early maturing propensities to his offspring without detriment in other ways.

THE LAMBING SEASON.

We, in southern England, are in the midst of lambing, or nearly so at any rate. Old customs linger long in Britain, and the method of erecting lambing pens varies a good deal, according to local traditions or requirements.

The site chosen for the lambing pen should be a dry, sunny spot, and should be sheltered from winds. A wagonload of hurdles and another of straw are all the building materials required, and these are quickly converted into cosy shelters. Very often the pen is built either around or on the warm side of a stack of straw, which will afford the material for litter. For a flock of 500 ewes an enclosure of this kind should be made sufficiently spacious to accommodate the flock without too much crowding.

The greater part of the pen may be open, while it will be found convenient to have the lambing pens in the interior, these being about six feet square—that is to say, three hurdles forming a square with one belonging to the original wall or hurdle fence, and for cover two more hurdles laced with straw, or covered with furze or other rough stuff to keep out the weather. Or another plan is to have around the inside of the pen small coops or compartments hurdled off, and in these the newly-delivered ewes can be isolated if necessary.

In the eastern counties of England a lot of shelter is necessary on bleak sheep farms for a flock of 500 ewes. At harvest time a stack of wheat and a stack of barley are placed in the centre of the intended yard, and are threshed a week or two before the ewes begin to lamb. On the coldest side of the yard is built a long stack of straw from the barley rick, so that a small piece can be cut daily for bedding in the pens.

Each of the other three sides is constructed of a double row of pens, the two rows being parallel and about three feet apart. This double row of pens must be set up before threshing the wheat stack. A large number of hurdles are required, and they should be wattled or have at least five ledges besides the back, so that the young lambs may not get through to the next pen. A yard for 500 ewes will be fifteen hurdles square, and if the pens are properly set out there will, of course, be fifteen on each of the three insides of the yard, and also fifteen on each of the corresponding outsides, these providing accommodation for from 90 to 120 ewes, the pens for ewes with single lambs being made only three-fourths of a hurdle wide, this being found sufficient.

A shower does not hurt a lamb as much as a continuation of wet, and if the roof of the pen is insufficient, it will not only run with water during the shower, but will continue to "leak" after the storm is over, and especially if it should be a snow storm.

To make the pens dry some poles are laid from hurdle to hurdle along the half of each

hurdle next the three feet space that extends between the double row of pens. The wheat stack is now threshed, but the straw elevator is replaced by about three extra men, who build the rick, as it were, in the three foot space between the double rows of hurdles, the roof being extended out over the half of the hurdles on each side adjoining, and carried to a ridge, and is carefully combed down and secured against the wind. By this method each pen is kept dry, and the straw is preserved as well as if stacked in the usual way.

Lambing cloths about 25 yards long and three feet deep are very handy, and can easily be hung before a row of pens, and as easily shifted when the wind changes. It is always advisable to find a fresh site each year. There is then no danger from contaminated land.

London, England. G. T. BURROWS.

Artificial Fertilizers: Their Nature and Use—IX.

By B. Leslie Emslie, C.D.A., P.A.S.I., F.C.S.

VALUATION AND PURCHASE OF FERTILIZERS.

The Dominion Fertilizer Act of 1909 requires the registration of every fertilizer offered for sale as such in Canada. A registration number is given and this number serves as a means of identification, since the Act provides that the guaranteed analysis, together with the registration number of the fertilizer for which it has been issued, must be stenciled on each sack or printed on a tag attached to the same. This measure affords the farmer a considerable degree of protection from unscrupulous dealers, but, unfortunately, many who purchase ready-mixed goods do not fully avail themselves of this safeguard, since they examine only the price per ton and disregard the analysis.

The fact was recently brought to the writer's attention that certain brands of ready-mixed fertilizers, manufactured by a firm in the United States, were being sold to Canadian farmers at prices ranging from 50 to 100 per cent. more than their usual commercial value, as based on the analyses, and in many cases the fertilizers were quite unsuited for the purpose for which they had been recommended by the agents of the firm in question. In view of this fact, it becomes necessary to emphasize the importance of being able to estimate the value of a fertilizer from its analysis.

Brand Names of Ready-Mixed Fertilizers.—In striking contrast to the farmers of Europe, who have long followed the practice of home-mixing, our neighbors to the south of us purchase chiefly ready-mixed brands with more or less attractive names. The value (to the manufacturer) of a name in selling a fertilizer was manifested in a recent investigation by the U. S. Government into the status of the various fertilizer companies, by the fact that millions of dollars of capital were represented by the registered brand names. Do not allow yourself to be influenced by a name, nor imagine that "Jones' Excelsior Potato Fertilizer" is just what you want for your potato crop, nor that "Smith's Corn Grower" will ensure you a bumper crop of corn. Examine the analysis, decide whether the ingredients are in the proper proportion and then figure out its value. To show that a brand name has no significance, we shall give the analyses of two fertilizers, each branded as suitable for potatoes, and both taken from the same page of the Dominion Government's Fertilizer Inspection Records:

Brand No. 1.—2.87 per cent. nitrogen; 9.05 per cent. available phosphoric acid; 12.40 per cent. potash.

Brand No. 2.—2.09 per cent. nitrogen; 9.10 per cent. available phosphoric acid; 3.43 per cent. potash.

Brand No. 1 is a high-grade fertilizer, containing a large percentage of potash, which is the dominant ingredient in a fertilizer for potatoes, and, besides being adapted to its intended purpose, has a commercial value of about \$35.00 per ton. But look at the potash content of No. 2. Here we find little more than one-fourth the amount of potash contained in No. 1, yet it is also styled a potato fertilizer. Its commercial value is about \$25.00 per ton, but its value as a potato fertilizer is much less, since it is quite unsuitable for that crop.

Although more striking instances could have been selected, the example suffices to show the absurdity of relying on a brand name as an identification of the fertilizer's adaptability to a certain crop.

It has already been remarked that purchasers of fertilizers often do not consider even the analysis. Recently, in conversation with an Essex County farmer, the writer was informed by him that he had been using fertilizers, but with indifferent success. On the writer's enquiring as to the analysis of the material which he had been using, the reply was: "Oh, but I couldn't

tell you that." Writer: "Then how do you know whether it is suited to your crops and conditions?" Farmer: "Oh, the agent always tells us what we need." Writer: "That's the trouble; too many farmers take the agent's word for it and the agent very often knows as little about the matter as you do yourselves; probably all he cares about is his commission on sales."

Statements of Analyses.—In our study of the different separate fertilizer materials, we considered only their percentage of nitrogen, available phosphoric acid and potash, but the statement of analysis, used to describe the average ready-mixed fertilizer, is much more elaborate. Besides the percentage of nitrogen, its equivalent in the form of ammonia is also given, while phosphoric acid is quoted in terms of "water-soluble," "citric-soluble," "insoluble," "available" and "total," and potash as "equal to" so much "sulphate of potash." The original object of this system can only have been to delude the farmer into the belief that he was getting more for his money than the bare statement of facts would indicate.

We shall give here a sample of statement of analysis:

Table with 2 columns: Component and Per Cent. Includes Nitrogen (1.64 to 2.00), Equal to ammonia (2.00 to 2.50), Water-soluble phosphoric acid (6.00 to 7.00), Citric-soluble phosphoric acid (2.00 to 3.00), Available phosphoric acid (8.00 to 10.00), Insoluble phosphoric acid (1.00 to 2.00), Total phosphoric acid (9.00 to 12.00), Potash (2.00 to 4.00), Equal to sulphate of potash (4.00 to 3.00).

We can imagine the mingled feelings of a farmer when first confronted with such a statement. Probably a feeling of awe and respect for the manufacturer, who can prepare such an elaborate bill of fare for plant appetites, alternates with one of despair of ever being able to fathom the meaning of the mystic symbols or the depths of the manufacturer's mind. It is small wonder then that some leave it to the manufacturer or his agent to tell them what they require.

There is a saying that "Clothes make the man," but if we wish for some purpose, to give a man's net weight, we do not state it as follows: Weight with coat, vest and trousers..... 160 lbs. Weight with suit and overcoat 170 lbs. Weight stripped 145 lbs.

The latter statement is the only one required and the others are valueless. If, then, we proceed to disrobe the statement of analysis under consideration, we reach the kernel of the matter and find:

Table with 2 columns: Component and Per Cent. Includes Nitrogen (1.64 per cent.), Available phosphoric acid (8.00 per cent.), Potash (2.00 per cent.).

"Oh mighty Caesar! Dost thou lie so low? Are all thy conquests, glories, triumphs, spoils Shrunken to this little measure?"

Small measure indeed, but it is the only part of the analysis which concerns us. Of course, it must not be imagined that all fertilizer manufacturers adopt this ambiguous form of quoting the guaranteed analyses with intention to deceive. In fact there are many who would prefer the simpler form, were its general adoption enforced, but since others use the more elaborate one, they do not wish their goods to run any risk of appearing at a disadvantage. Let us further analyze our analysis: The second column of figures, giving the higher percentages, may at once be dismissed from our notice. The lower percentages are those which are guaranteed and you may be sure the manufacturer will keep as close to these as his skill in compounding mixtures will permit. Nitrogen is quoted as "equal to ammonia." Now, ammonia is just another way of quoting the same thing; it represents nitrogen combined with three parts of hydrogen, and four pounds of nitrogen will be approximately equal to five pounds of ammonia. You will note that the "citric-soluble" has been added to the "water-soluble" to give the "available" phosphoric acid, which is what we wish to know. We find potash quoted as "equal to sulphate of potash" and this is very misleading, since it might be taken to mean that the potash is present in that particular form, which it seldom is; the muriate being cheaper is almost always used.

Last year the writer took this matter up with the Minister and other officials of the Department of Inland Revenue, recommending that the guaranteed analyses should be stated in the simplified form and the source of each ingredient given. In this proposal several prominent Canadian manufacturers concurred, but so far no important alteration has been made.

To those who understand the value of an analysis, the manufacturer quotes his goods as a "two-eight-ten" or "two-eight-six," etc., meaning the percentages of ammonia (usually), available phosphoric acid and potash, respectively.

Valuation of a Ready-Mixed Fertilizer.—Tak-

ing the example already referred to, viz., 1.64 per cent. nitrogen, 8 per cent. phosphoric acid (available) and 2 per cent. potash, we proceed as follows: By multiplying the percentage by 20 we get the number of pounds of each ingredient in a ton and, in this case, find 32.8 lbs. nitrogen, 160 lbs. phosphoric acid (available) and 40 lbs. potash. If in our locality nitrate of soda (15 per cent. N.) costs \$60, acid phosphate (14 per cent. available P₂O₅) \$16, and muriate of potash (50 per cent. K₂O) \$45 per ton, the price per pound of each ingredient would be nitrogen 20 cents, available phosphoric acid 6 cents and potash 4.5 cents. We apply these prices in our calculation as follows:

	Per Cent.	Cwt.	Lbs. in Ton.	Cents.	Value in Ton.
Nitrogen	1.64	X 20 =	32.8	X 20 =	\$6.56
Av. Phos. Acid	8.00	X 20 =	160.	X 6 =	9.60
Potash	2.00	X 20 =	40.	X 4.5 =	1.80
Total value per ton					\$17.96

It is evident that this is a low-grade fertilizer, containing a large amount of "filler," and could appeal only to the uninitiated on account of its low price. Low-grade goods will never be purchased by "farmers who know," since the extra bulk entails unnecessary costs of freight and handling. The price of low-grade goods is always more per unit of plant food than the high-grade goods, but, as already intimated, the farmer too often selects his fertilizer by the price without regard to the analysis.

This argument will be continued in the next article. In order to follow the thread of the discourse, it is desirable that readers keep on hand the back numbers of "The Farmer's Advocate," in which the previous articles appeared, for reference.

(To be continued).

A Vitrified Block Silo.

Among the newer styles of silos in use in Canada and the United States are those built of hollow vitrified clay blocks. "The Farmer's Advocate" has received particulars of one of these erected during the past season on the farm of Thos. Jenken, Westminister Township, Middlesex Co., Ont., filled in the autumn and now being fed from. The blocks being glazed and laid up by capable masons it presents an attractive appearance, and the galvanized roofing supported on pine rafters aids in preserving the silage, which seems to have settled well and is coming out in the best of condition. The blocks are 16 inches high by eight and a half inches thick, one way and seven and a half inches the other, so moulded in manufacture as to form a circle when laid. Each block weighs about 34 pounds. In building they are set on end, and between each course of the large blocks is laid a course of what are called channel blocks, three inches high, through a groove of which are laid in cement mortar, two steel bands 1/2 inch by 1 1/2 inches which extend around the circumference of the silo for strength. A wooden circle was used by the masons in laying the blocks, the wall being begun 2 1/2 feet below the surface of the ground and extending 32 feet high with a diameter of 12 feet. The mortar used was made of good sharp sand and Portland cement in the proportions of three to one with a little lime added. About 55 blocks made one course around the circle. A door space was left through which the ensilage is taken out for feeding. The doors are in eight sections of two feet three inches by three feet five inches, and for strength pieces of galvanized iron piping were put in 20 inches apart across the door space. Each end of the pipe or tie bar is connected with the steel reinforcing bands, so that the wall is completely encircled with steel every 20 inches. Two rows of bolts were embedded 3 1/2 feet apart each side of the door space on which to fasten the chute.

The blocks on each side of the opening are moulded as jambs to receive the wooden doors. Two masons with two attendants laid about five courses per day. Not including what was required for the floor about twelve barrels of cement were used. The vitrified blocks, reinforcing irons and pine doors and rafters were supplied by the company making the blocks at \$288 laid down at local railway station. Other materials, mason work, teaming, and home labor involved would bring the total cost up to about \$400. Mr. Jenken is well pleased with the job, and the silage has kept perfectly to the wall. Owing to the large area of air space in the wall, he regards it as much preferable to a solid or wooden wall silo, especially in very frosty weather. During the severe dip of cold in January the frost did not show through. He believes they will stand every test in respect to strength and durability.

The Cost of Carelessness.

Editor "The Farmer's Advocate":

A barn door blew off with the wind for want of being properly fastened on. The door was left around and one night a horse strayed into the barn and stepped off the hard floor onto the empty mow. He went through and was found dead next morning. Loss \$150.

A boar pig with ugly long tusks was allowed out in the yard. He went for a very fine registered mare, heavy in foal, and tore her badly. The veterinarian came at once, but could do nothing, and the fine animal died. Loss \$400.

A pasture-field gate was insufficiently fastened and five horses got out, and strayed on to the railway track and were caught by the "Flyer" and killed. Loss estimated about \$850.

Another farmer had a poor fence and three of his horses got out and strayed on the railway track and were killed. Loss \$750.

Still another farmer neglected to have his gate properly fastened and three of his horses strayed away during the night on the railway track and were killed by the train. Loss about \$600.

Another man turned some of his horses into the yard, and the gate not being fastened, they got on the road and wandered up to the railway tracks, being on the crossing when the "Flyer" came along, two good colts, valued at \$300, were killed.

Now, reader, is that not a terrible list of losses? They are not imaginary but actually occurred within a radius of five miles inside of six years. If we knew all the other losses, caused by barbed wire left carelessly around cutting and ruining horses, by milk getting sour for want of being properly cooled, etc., the total of losses would probably run up to nearly \$4,000. And all this loss was preventable. Because the railway company had not sufficient cattle guards at the crossing they paid for some of the horses killed. In the days of horse-power threshing a neighbor and his man and team came to help me to thresh; at noon the neighbor noticed his man feeding his horses, and he asked him, "Do you feed the horses that much oats every day?" The man replied, "Ah, but these baint our oats." Now, although it was the railway company's money and not the farmer's that paid for the loss of the horses, it was really the farmer's carelessness that allowed the horses to stray away on the track and get killed. Every boar pig should be confined in a strong pen from which he cannot escape, and lest he should accidentally get out, his tusks should be kept trimmed short. This is easily done by slipping a rope over his upper jaw and pulling him up to a post. With dehorning clippers the tusks can be easily cut off in five minutes. How many people are maimed and killed every year by bulls that have not been dehorned. Every bull should be dehorned and have a good strong ring in his nose and be confined in a strong box stall.

"The Farmer's Advocate" is very desirous of helping farmers to make and save money by every lawful means, and that is the reason that attention is called to the great loss caused every year by carelessness altogether preventable. The beauty of carelessness is, that money can be saved and made without and other person suffering the slightest loss. A great amount of money could be saved by farmers every year if the horses were properly cared for. It should be washed with hot water and well oiled twice every year. We have a set of single harness that has

been on duty for 30 years and, with a little fixing, will do service for a few years more, all because it has been taken care of. If wagons and implements were kept out of the weather when not in use and carefully cleaned off and painted every ten years they would last much longer. We have a set of trucks that were made down from a wagon 40 years old that look as if they might last 20 years more. I once asked an old lady the secret of a certain farmer's success and she told it in one word, carefulness. Now, what are we going to do about it? Are we going to take warning by the losses of others and see that the like does not happen to us? There is a story told of a farmer who had a great habit of putting things off, saying, "Oh, I will do that to-morrow." He was not very successful, and one day he went into a friend's town, a lawyer, and asked him to give him some advice that would enable him to succeed better. The lawyer wrote a few lines on a sheet of paper, put it in an envelope and sealed it up. He told the farmer to read it when he got home. He paid the fee, and when he opened the letter he read these words, "Never put off till to-morrow what you can do to-day." At first he was offended, but after thinking it over, he went to work in earnest to carry out the advice, and in a few years his ambition to succeed was realized. WELL WISHER.

THE DAIRY.

Watch the Oleo Game.

Dairymen and all concerned for the supplying of honest food products in Canada do well to be on the alert. The warnings in "The Farmer's Advocate" for some time past in regard to designs on the wise Canadian statutes prohibiting butterine, oleo, or other butter substitutes, were none too early nor pointed. Taking advantage of the clamor concerning the cost of living, the market and commercial department of a Toronto newspaper was recently used to report the specious pleas for the "cheap," "tasty," "delicious" substitute, "harmlessly colored," which the consumer "could not tell from butter." The reader was soothed with the dope that in the States, where the oleo interests are entrenched, stringent laws make deception impracticable. The benefits to the would-be makers of the imitation products are, of course, held out with the usual bait to the farmer that his cattle would be worth \$2 more per head through their fat being turned into "oleo." These claims, appearing under the guise of news, have already been answered in these columns. By more than a quarter of a century's faithful efforts, both public and private Canada has built up a reputation at home and abroad for honest dairy products and dairymen are advised to lose no time in calling upon those who represent them officially or in Parliament to nip in the bud designs either open or covert which would inevitably result here as elsewhere in the deception of consumers under the guise of helping them and at the same time strike a blow at dairy farming which in Canada is now getting upon its feet. The advent of these products would multiply the difficulties of agriculture, probably double the work and cost of inspecting the imitation butter traffic and put the genuine industry generally in confusion. The oleo interests are widespread and strong and elsewhere they have long been in the game, so the dairymen may be sure they have no child's play ahead of them.



The Men Behind the Dairy Cattle Exhibit at Guelph.

Dr. Maria Montessori

How Successful Herds are Managed.

The dairy-herd competition conducted by the Western Ontario Dairymen's Association culminated at the time of the recent convention, when the awards were presented. It is interesting to know how those herds were managed that gave the best results and the following is a short description of how three winning herds were fed and managed, told in the words of the successful owners:

In regard to the care and feeding of my herd for the winter months, I may say the cows are kept in the stable and groomed each day. The feeding is done at five o'clock, morning and night; nothing is fed at noon, and the watering is done after each feeding.

The feed consists of silage, oat chop 150 lbs. to 100 lbs. of shorts mixed. I also feed bran and gluten feed, oilcake and cotton seed mixed at time of feeding, along with good alfalfa or clover hay and roots, mangels preferred.

The ration that I am feeding is composed of the following:

Two lbs. of oat chop and shorts mixed; 2 lbs. bran; 2 lbs. gluten feed; 1 1/2 lbs. oilcake; 1 1/2 lbs. cotton-seed meal; mangels, 20 lbs.; silage, 10 lbs., at each feeding.

This is for heavy-milking cows, where we are milking three times a day.

I believe that good winter care of the herd has a lot to do with the summer milking, also in feeding the dry cows a good liberal supply of grain composed of oat chop and bran. I turn my cows on pasture about the 24th of May, feeding hay and some grain at night and morning, also keeping cows in stable at night for a week. With this method they do not mind the change at all. I also feed bran and oat chop or shorts, equal parts, during the summer months, also feeding silage twice a day, morning and night, from about the middle of July.

H. F. PATTERSON.

Brant Co., Ont.

My present herd consists of seven veterans of the year 1910 and three younger cows, all grade Holstein. The seven are the product of grade Shorthorn dams and a pure-bred Holstein sire. The three are from grade Holstein dams and a pure-bred Holstein sire. In all cases milking strain figures largely.

Good clover pasture constituted a great part of the summer feeding. When this began to dry up, a soiling crop of oats, sown early in June, was ready and helped out the failing pasture quite acceptably. This oat pasture lasted until the first week of September, when sweet corn took its place. Very little grain was fed during the summer months, perhaps about three pounds per cow per day. This was in the form of oat chop.

We try to milk at regular hours. We stop the other work of the farm a little early in order that the night's milking may not be too far distant from that of the morning. I have always carried out this plan and it seems to be a good one. A good supply of fresh, cool well or spring water is always accessible to the cattle.

The quality of the herd, backed by these methods, is the only reason I can give for winning the splendid trophies put up by the Association this year.

JOHN W. VAN SLYKE.

Elgin Co., Ont.

Our herd is a dual-purpose herd, kept up partly by the use of a pure-bred Shorthorn sire and partly by buying what seem good-producing grade cows. We raise all the calves, giving them the whole milk for two weeks and then very gradually change to the separated milk until at the end of four or five weeks the whole milk is left out, at which time they are eating a little oat chop and some well-cured clover hay. The calves, with the exception of those needed for cows, are fattened for the market at two to two and one-half years old. To make use of the milk that is not needed for the rearing of the calves two to three brood sows are kept and their litters are fed the balance of the separated milk together with their feed.

We aim to have the heifers freshen at about two and one-half years old. They have been fed liberally up to this time and are always in good heart at the time of calving. It is my aim to keep them milking about a year after they freshen the first time. This trains them to a longer milking season than if they are let dry too soon.

Most of our cows freshen in April or early in May. We have not aimed to have them freshen at this season. I would rather they would freshen earlier in the winter. There is water always before them. In the cold weather they are not turned out very often and therefore we miss having them bred earlier in the season. I never allow a cow to freshen when in a thin condition. If she is in low flesh when she goes dry she is fed enough grain with ensilage and hay to put her in prime condition. This I think is very important, because every good-producing cow will fall in flesh when in full flow of milk. If they

are thin when they freshen they will soon weaken and will fail in the flow and the season will be shorter.

My success during the past season was perhaps partly due to circumstances. We had fewer other cattle on the farm and as a result the cows had better pastures. Another very important point I observe is to change them to another field quite often. Another thing that helped our production and helped to keep the cows well up in their flow was a feed of about two quarts of ground oats, barley and corn at each time they came in for milking, and still another thing which is very important, the cows at all times have access to a running stream of spring water to which it is so arranged they can go from any field on the farm.

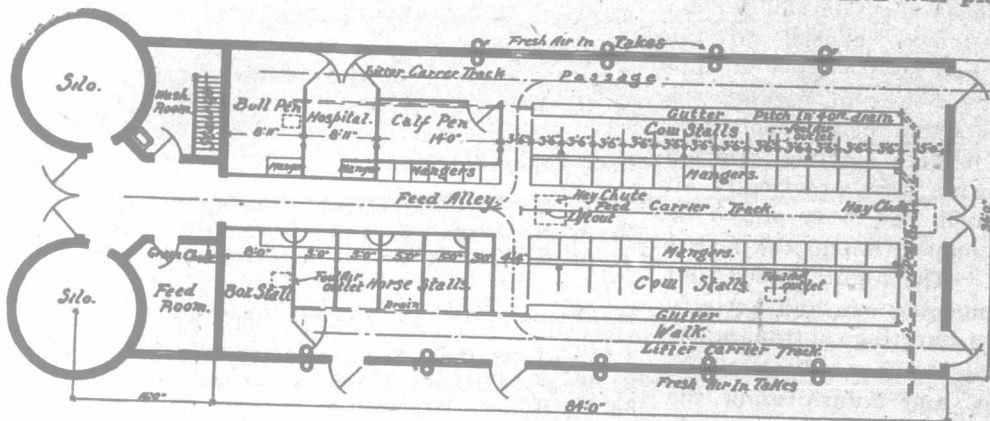
I insist on kindness, regularity and careful milking, with a constant supply of salt that they can go to at any time.

A. W. VAN SICKLE.

Brant Co., Ont.

Two Dairy Barn Plans.

Herewith we are publishing two barn plans suitable for dairy farms in any part of the country. Number one is a barn which has been recommended both in this country and in the United States as suitable for an eighty-acre dairy farm. It is 84 feet long and 36 feet wide and, as will be seen, has stalls for 24 head of cows tied and provision is made for calves in a large box stall. There is also a hospital which, when no cows are needing it, might be used for calves



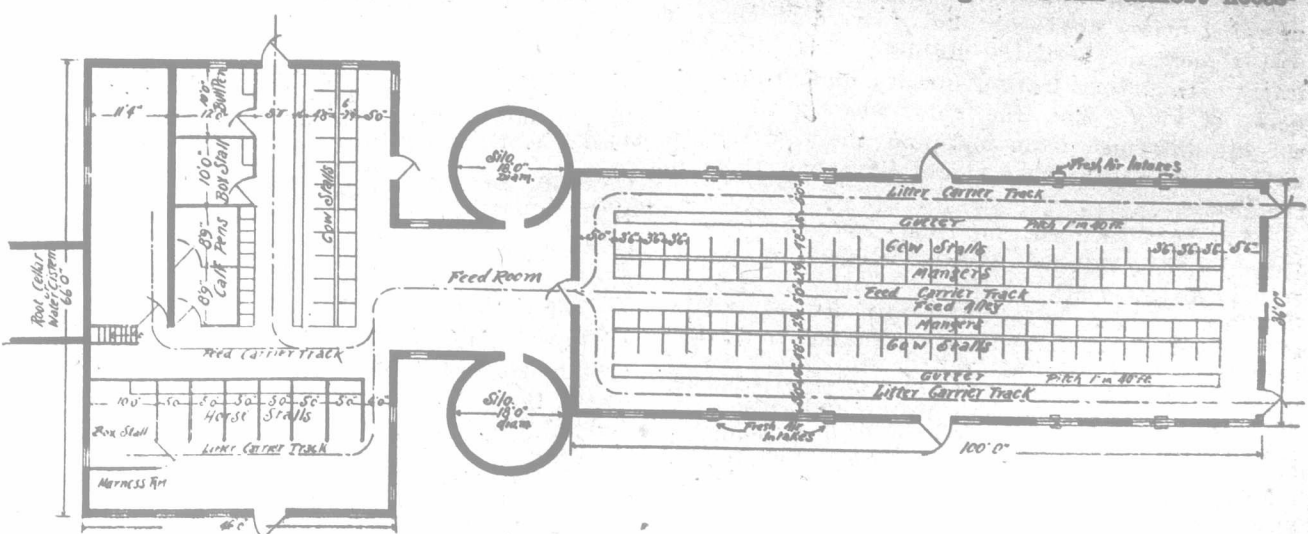
Plan No. 1—Barn for an 80 or 100-acre Farm.

or young stock, and a suitable box stall for the bull. The horse stable is plenty large enough for a farm of this size, there being accommodation for four horses tied and a large box stall for colts or brood mares. There is a feed room and wash room handy in one end, as shown in the illustration. This is a very complete little barn and quite large enough for a farm of more than 80 acres, many 100 or 125-acre farms not carrying more stock than may be comfortably stabled in the basement of this barn.

Note the number of windows, the provision for taking in of fresh air through the wall, location of foul-air outlets and the general handy layout of the barn. This barn could be used equally well for beef cattle as for dairy cattle and the plan is a very good one from which our readers may be able to get some ideas in planning building operations for the coming summer.

In the second-floor plan of this barn, which is not shown, there is one large thresh floor over the horse stable. The granaries are located over the feed room and wash room and box stall next to them. The remainder of the barn over the cows is divided into bays.

The second barn is much larger and readers will note that there is an extension entirely separate from the main barn. This extension may be made any size. In this particular plan the barn proper is 66 feet long and 45 feet wide, while the extension is 100 feet long and 36 feet



Plan No. 2—Barn for a Larger Farm.

wide. There is room to tie in the extension 50 cows and in the barn proper there is a bull pen, a box stall, two calf pens and space for 11 cows tied, leaving room for six horses tied, a good-sized box stall and a harness room. The root cellar is in the far side of the barn and under the approach. This barn is suitable for a large-sized farm and may be used as a dairy barn or as a general stock barn. Two silos are placed between the barn proper and the extension and the feed room is built in between these. This is a very good plan and one which may be used in building barns of smaller or greater size. The extension being separate from the main barn is an excellent idea and the feed room as situated is handy to both. The size of the stalls, width of passages and all dimensions are given on the plan. We would advise readers to look over these two plans and others illustrated in this issue and keep them in mind when planning their new barns or remodeling old buildings.

In this larger barn the driveway to the second floor comes in just over the root cellar in the main barn. The grain bins are situated in this extension and the feed chute runs down from them into the feed room.

HORTICULTURE.

Pre-Cooling of Fruit.

The life of Canadian markets for home-grown fruit will be very much extended by a system of distribution which will place our small perishable

fruits into the hands of those in the western provinces and northern towns. In order to do this the fruit must be carefully handled, and the cars must be iced and well ventilated. However, in other countries pre-cooling of fruit is adopted in order to prolong the life of the fruit, which goes into storage. Fruit which is gathered and rushed at once into real

cold storage does not stand up as well as fruit which is brought to a low temperature through the gradation system of pre-cooling.

Fruit growing on the trees is undergoing constitutional or physiological changes which bring about its ripening. After a certain span of life these operations cease, and then the fruit is more subject to the attacks of fungus which cause decomposition. When fruit is gathered from the trees and left in a high temperature the span of life is very much shortened, and it is more subject to decomposition than when low temperatures are used to prolong this span of life.

Pre-cooling is not a panacea for all the troubles in connection with shipping fruit. If the fruit is at all bruised or the skin injured access to the fruit is given for the germs which cause decay, so in order to send the fruit forward in the best possible condition too much emphasis cannot be put upon careful intelligent handling.

Extensive experiments have been conducted in the Southern States relative to the care of oranges, lemons, berries and many citrus fruits, and with few exceptions they have culminated in results favorable to the pre-cooling system.

When apples are being shipped West in the early autumn and the cars are sufficiently iced and well ventilated, no trouble should occur. But in order to distribute the smaller perishable fruits to good advantage it seems almost neces-

sary to have an extensive system of pre-cooling and shipping built up by the industry in the East.

Defective Crotches.

Broken crotches are observable sometimes in heavily laden orchards, and when the weight of the fruit has once borne the limbs down it is rather difficult to remedy it in that season, but now that the leaves and fruit are all off the trees the branches are probably back into their normal position. This defect is sometimes due to the weight of the apples, sometimes to the natural habits of the varieties, and sometimes the blame is due to the pruner or the man who formed the top of the trees. Before the foliage comes in the spring it is advisable to make a survey of the orchard and count and measure the defective trees. Often the trees may be strengthened by chains from limbs above the crotches.

but as these limbs develop the chain is liable to choke off the supply of sap and be detrimental to the growth. A better plan is to bolt these limbs just a little way above the crotch. An ordinary bolt purchased at the hardware store can be cut and spliced, leaving the large head on one end and a thread on the other to receive the nut. A spliced bit, in some cases, will also be necessary to make these holes. A washer of considerable magnitude should be placed under the nut, and this can be screwed up so that the two parts of the trees will come together in their normal condition.

The grafting season may be commenced early in the spring and it may be extended late into the summer, but the scions which are to be used should be gathered during the early spring before the flow of sap starts. When these are first gathered they should be kept in soil in a dark place. Under these conditions they are kept fresh, and will keep over into the summer. The most advantageous time to set these scion will be during the months of March and April.

FARM BULLETIN.

The two week's short course at the Nova Scotia Agricultural College was completed on Friday, Jan. 16th. The enrolled attendance was 351, which is the record for the institution. Of this number about forty came from New Brunswick, upwards of ten from various parts of America, and the balance from the Province of Nova Scotia. Not only in numbers but in the character of the work and enthusiasm the course of 1914 stands out as the most successful of the series that have been held during the past ten years. As time goes by one becomes more and more impressed with the fact that the Maritime Province farmers are realizing their agricultural possibilities and that the movement toward the improvement of agricultural conditions is gradually gaining force and will lead before many years pass to the Maritime Provinces taking the place which they were always intended to take among the foremost agricultural parts of America.

Ottawa Winter Fair Has An Unhappy Ending.

What promised to be Ottawa's most successful Winter Fair was, in the brief period of a second's time, transformed into the most tragic calamity that has ever been visited upon any American live stock show.

On the morning of January 20th, 1914, the doors of Howick Pavilion at the Central Canada Exhibition Grounds, Ottawa, opened to the public. The Dairy Test had been completed, and the judges commenced their task of making the awards. The stock was all in prime condition, and the exhibitors were in high spirits. During the day the sheep and swine were practically all judged, many of the awards had been placed on the beef cattle, and the competition in the horses was getting keen indeed. The night passed, but with the coming of the morning sun and activity in the building came the bursting of the boiler in the basement, hurling huge timbers aloft, wrecking large structures, and transforming the lives of animals and men into mere history. It is needless to elaborate on what might have been, but suffice it to say that after the opening of the Fair the accident could not have occurred at a moment when the loss of human life could possibly have been so small, and it seems that Providence timed an inevitable disaster that confident and innocent parties might be farthest from a danger point.

The outlook for the Fair was bright. Over 280 horses were entered and the capacious wings were full, with some animals stabled outside the grounds. This in itself was a strengthening feature of the Fair, and the number and quality was a topic for much comment on the first day. Clydesdales were the strongest, but other breeds were well represented. The heaviest loser of the whole number of exhibitors is probably Geo. Pepper, of Toronto, who was exhibiting a number of his Hunters. R. Ness & Son, of Howick, Que., also lost considerable from injury to their Clydesdales, but Sir Spencer, their aged stallion, came out of the thickest of it almost unhurt.

The cattle were little injured, and the sheep and swine came through with small loss. Next to the horses most injury occurred in the poultry pens, some of which were situated above the boiler.

THE DAIRY TEST.

The dairy test was completed on Tuesday morning before anything had occurred to cause a disturbance in the dairy stables. The test was fairly satisfactory from a quality and production point of view, but the cold weather deterred several dairymen from shipping their cattle to Ottawa, who otherwise would have had them in the test.

The prize winner on this occasion was a Holstein cow, Daisy Posch, owned by W. J. Bailey, Nober, Ont., who won with a total score of 259.09 points. The dairy test, determined by scales and Babcock test, had replaced the prize method of judging dairy cattle, as it brings out all the possibilities within the cow, some of which might not be recognized or discerned by a judge. The total number of points is made up from a certain number of points allowed for the quantity of milk given, percentage of fat in the milk, and one point is allowed for each ten days a cow has been in milk after the first 30 days. Following is a tabulated record of the test:

Ayrshire—Cow 48 Months or Over :

	Lbs. milk	Per cent fat	Total points
1. A. S. Turner & Son, Ryckman's Corners ; White Floss.....	161.80	3.8	198.48
2. A. S. Turner & Son ; Briery the 2nd of Springbank.....	163.00	3.4	198.80
3. R. Meharey, Russell ; Barcheskie Viola 2nd.....	187.60	4.1	178.78
4. R. Meharey ; Barcheskie Helen.....	135.00	4.0	169.78

Cow 36 Months and Under 48 :

1. A. S. Turner & Son, Ryckman's Corners ; Wh.....	180.70	4.3	185.00
2. A. S. Turner & Son ; Pansy of Springbank.....	138.30	3.4	156.05
3. R. Meharey ; Valley Pride.....	119.90	3.6	132.24

Cow Under 36 Months.

1. A. S. Turner & Son ; Sprringbank Phyllis.....	137.40	3.5	155.25
2. A. S. Turner & Son ; Queen Floss of Spring Maid.....	100.60	4.2	132.09
3. A. S. Turner & Son ; Springbank Lily.....	116.80	3.2	128.26

Holsteins—Cow 48 Months or Over :

1. W. J. Bailey, Nober ; Daisy Posch.....	252.10	3.1	259.09
2. W. J. Bailey ; Hilda of Nober.....	203.50	3.3	249.95
3. E. Baker, Winchester ; Cassie De Kol Wayne.....	247.80	2.9	240.49
4. R. Holthy, Manchester ; White Lily.....	225.40	3.0	227.06
5. R. Dowlar, Billing's Bridge ; Netta Jewel.....	193.30	3.6	225.85
6. R. Dowlar ; Ossian Bell.....	169.80	3.4	189.10
7. T. A. Spratt, Billing's Bridge ; Maudie De Kol.....	156.60	3.1	168.97

Cow 36 Months and Under 48 :

1. L. Harwood, Vaudreuil, Que. ; Mary Segis Beeta.....	197.20	3.2	205.37
2. L. Harwood ; Korndyke Queen De Kol 6th.....	177.00	3.4	195.75
3. L. Harwood ; Lady Carmen Pontiac.....	191.30	2.8	181.34
4. R. M. Holthy ; Lula Inka Mercena.....	137.00	3.3	157.11

Heifer 24 Months and Under 36 :

1. R. Dowlar ; Cassie De Kol.....	175.80	3.3	188.41
2. W. J. Bailey ; Countess Posch.....	183.30	3.0	181.68
3. E. Baker ; Minnie Connor De Kol.....	181.90	2.8	174.36
4. R. W. Walker, Utica ; Jewel Hengerveld Kor dyke.....	129.20	4.0	162.68
5. R. M. Holthy ; Elindale Mable.....	148.30	3.1	151.77
6. L. Harwood ; Woodcrest Reta Peitertje.....	131.70	3.5	147.85

Heifer Under 24 Months :

1. W. J. Bailey ; Ideal Daisy Faforit.....	147.40	3.8	180.88
2. R. M. Holthy ; Francy Dutchland Hengerveld.....	129.20	4.0	161.90
3. W. J. Bailey ; Hengerveld Faforit.....	151.50	3.2	159.08
4. L. Harwood ; Hit Loo Artis Pontiac.....	154.80	2.9	149.46
5. R. Dowlar ; Pet Posch.....	116.60	3.4	134.72
6. R. M. Holthy ; La Fata Fayne Segis.....	122.40	3.0	121.45

Shorthorns—Cow 36 Months and Under 48.

1. Samuel Bray, Beathton ; Primrose Maid.....	108.80	4.5	161.57
2. A. H. Foster, Richmond ; Lady Morning Glory 3rd.....	108.10	3.3	121.21

Cow Under 36 Months :

1. Samuel Bray ; Dairy Maid.....	76.60	3.2	82.02
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Grade Cows—Cow 48 Months or Over :

1. T. A. Spratt ; Bell.....	176.70	3.8	213.96
2. Dowlar Bros. ; Billings Bridge ; Belle.....	189.80	3.4	208.69
3. Dowlar Bros. ; Nell.....	205.10	2.9	201.84
4. T. A. Spratt ; Bessie.....	172.60	3.4	200.16

Cow 36 Months and Under 48 :

1. T. A. Spratt ; Carrie.....	200.50	3.5	229.91
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BEEF CATTLE.

The exhibit of beef cattle promised to be one of superior merit and things were just getting in systematic order when the explosion came. However, the Shorthorns and Herefords had been judged by John Gardhouse, of Highfield, Ont., and the exhibitors and awards are given below:

Shorthorns.—Exhibitors: D. A. Graham, Wainstead; Pritchard Bros., Fergus; A. A. Armstrong, Fergus; T. A. Russell, Downsview; R. F. Duncan, Ancaster; Wm. Knight, Jr., Mull; W. A. Wallace,

Kars; Kyle Bros., Drumbo; Wm. Ormiston & Sons, Beathton; E. Brien & Son, Ridgetown.

Awards: Steer, two years and under three: 1, Armstrong; 2, Pritchard Bros.; 3, Graham. Steer, one year and under two: 1 and 4, Russell; 2, Pritchard Bros.; 3 and 5, Armstrong. Steer under one year: 1 and 3, Pritchard Bros.; 2, Duncan; 4, Armstrong; 5, Knight. Heifer, two years and under three: 1, Kyle Bros.; 2, Armstrong; 3, Wallace; 4, Ormiston. Heifer, one year and under two: 1 and 2, Kyle Bros.; 3, Brien; 4, Wallace; 5, Graham. Heifer under one

Dr. Maria Montessori

year: 1 and 2, Kyle Bros.; 3, Brien; 4 and 5, Wallace.

Herefords.—L. O. Clifford, Oshawa, and A. Reynolds, of Elora, were the only exhibitors in the white faces. Reynolds won first on steer or heifer under one year and the remainder of the money in this and other classes went to Clifford.

The judging of the beef grades and crosses was not completed, so no awards will appear.

SWINE.

The exceedingly high prices paid for commercial hogs and the attractive prices paid for breeding stock for some months and the resultant scarcity so evident all over the country was probably the chief factor in the decided falling off in the entry this year, which was much below that of several years past in point of numbers. The quality, though, was fully up to the usual high standard so conspicuous at the Ottawa Fall and Winter Shows. Yorkshires were numerically the strongest of any of the breeds and some extra nice quality was out, exhibited by J. Featherston & Son, Streetsville, Ont., and Gramandyne Farm, Ottawa. Barrow, six months and under nine: 1 and 4, Featherston; 2 and 3, Gramandyne Farm. Barrow under six months: 1 and 3, Gramandyne Farm; 2 and 4, Featherston. Sow, six months and under nine: 1 and 2, Featherston; 3 and 4, Gramandyne Farm. Sow under six months: 1 and 4, Gramandyne Farm; 2 and 3, Featherston. Berkshires.—The only entry in Berkshires was that of the well-known breeders, E. Brien & Son, Ridgetown, Ont., whose splendid exhibit lost much interest to the spectators from no competition, they getting all the awards. Tamworths.—In this class again there were only two exhibitors, E. Brien & Son and Gramandyne Farm. In both the barrow classes, Brien captured both firsts and Gramandyne Farm both seconds and thirds. In the sow classes, Gramandyne Farm had all the entries and received all the awards. Grades and crosses had the largest entries of any of the classes. Barrow, six months and under nine: 1 and 6, Featherston; 2, Pritchard Bros., Fergus; 3 and 4, Gramandyne Farm; 5, J. McKenzie, Beathton. Barrow under six months: 1, 3, 4 and 5, Gramandyne Farm; 2, Pritchard; 6, Featherston. Sow, six months and under nine: 1, Gramandyne Farm; 2, Featherston; 3, McKenzie. Sow under six months: 1, 2, 5 and 6, Gramandyne Farm; 3, Pritchard; 4, Featherston. Three Export Bacon Hogs.—The quality of bacon hog exhibits was probably the best ever seen at an Ottawa show and reflected much credit on their exhibitors. Three pure-breds had an entry of eight lots of splendid uniformity and fitting, but owing to some irregularity in the matter of registration, they were not judged on Tuesday evening, and the wrecking of the building on Wednesday morning by the explosion of the boiler, stopped all judging and ended the show. Three grades or crosses in the bacon classes were judged with the following result: 1 and 5, Gramandyne Farm; 2 and 4, Featherston; 3, Pritchard; 6, Ferguson. All the swine awards were placed by D. C. Flatt, of Hamilton, with satisfaction to all.

SHEEP.

There was nothing left to be desired in the sheep exhibit, one of the choicest and strongest exhibits ever seen at an eastern show; the fitting was most correct, the various breeds characteristics seen in their perfection, they were judged by Col. McEwen, of London, with his customary precision and accuracy. Cotswolds were exhibited by E. Brien & Son, Ridgetown, and A. A. Armstrong, Fergus. Armstrong got 3 and 5 on wether under one year, and 2 on three wethers under one year, Brien getting all the other awards. Lincolns had a much stronger representative exhibit whose typical and well-fitted entries made a close competition. Exhibited by Jos. Linden, Denfield; John Kelly, Shakespeare, and A. A. Armstrong, the latter getting first on wether under one year and second on three wethers under one year, Kelly getting third on wethers under one year. Linden getting all the other awards. An exceptionally choice entry in this breed was from the noted flock of Herb. Lee, of Highgate, but owing to a mistake in entering them in the name of E. Brien & Son, they were not allowed to compete. Leicesters.—High in quality and strong in numbers, the Leicesters made a good showing. Exhibitors: D. A. Graham, Wanstead; John Kelly; A. & W. Whitelaw, Guelph, and W. R. McDonald, Ridgetown. Wether under one year: 1, 2 and 4, Kelly; 3 and 5, Whitelaw. Three wethers under one year: 1, Kelly; 2, Whitelaw. Ewe under one year: 1, 2 and 4, Whitelaw; 3 and 5, Kelly. Three ewes under one year: 1, Whitelaw; 2, Kelly. Oxfords.—One of the best exhibits of Oxfords seen in Ottawa for some years was from the high-class flock of J. A. Cerswell, of Bond Head, and with exception of third in class for wether under one year and third on three wethers under one year, which went to A. A. Armstrong, Cerswell won all the awards. Shropshires.—A battle royal for supremacy came in the Shropshire classes between

the well-fitted entries of J. & D. J. Campbell, of Woodville, and J. Lloyd-Jones, of Burford, with the odds in favor of Campbell, as follows: Wether one year and under: 1 and 5, Jones; 2, 3 and 4, Campbell. Three wethers under one year: 1, Campbell; 2, Jones. Ewe under one year: 1, 3 and 4, Campbell; 2 and 5, Jones. Three ewes under one year: 1, Campbell; 2, Jones. Southdowns.—Excellent fitting and superior quality was characteristic of the Southdowns exhibited by Geo. Baker & Son, Burford; Lloyd-Jones, and A. Ayre, Bowmanville. Wether under one year: 1, 2 and 3, Jones; 4 and 5, Baker. Three wethers under one year: 1 and 3, Jones; 2, Baker. Ewe, under one year: 1 and 5, Baker; 2, 3 and 4, Jones. Three ewes under one year: 1, Baker; 2, Jones. Dorsets.—A. Ayre, of Bowmanville, had things all his own way in Dorsets and captured

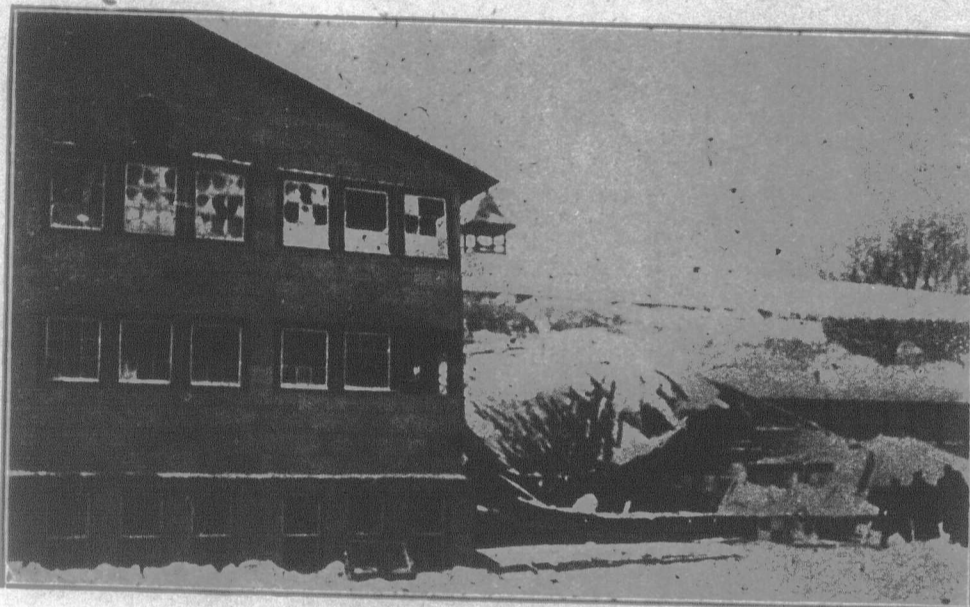
In Foggy Weather.

By Peter McArthur.

At the present writing I am beginning to hanker for the sun. It seems months and months since I have seen it. Though we have had no rain to speak of and very little snow there has been a great deal of cloudy weather and to-day, to cap the climax, we have a fog so heavy that we would be better with the lights lit. I do not know how it may be with other people, but my system seems to demand sunshine. The days I remember best are all sunshiny days and if I had the power at the present moment to say with compelling authority:

"Backward, turn backward, O Time in thy flight,"

I would have it turn backward to some boyhood day when I stretched myself full length on the sunny side of the strawstack and didn't care whether school kept or not. Other people may hanker for the sun parlor of some hotel in Florida or California, but I would be entirely satisfied with a place on a stack of clean wheat straw where it had been cut out in a sweeping semicircle that kept off the north, east and west winds and let the sunshine pour in from the south. They used to cut stacks that way, but I suppose they don't any more. As a matter of fact, I suppose a good farmer wouldn't have a strawstack. He would have all his straw in the barn. But I am not thinking of superior people of that kind this morning. I am thinking of how I would cut a strawstack to make a sun parlor on it, if I had one. But there are no strawstacks on pasture farms and there is no way of lying with comfort on a stack of cornstalks. But what is the use of arguing about what I would do if I had a strawstack? The sun isn't shining anyway and dear knows when it will shine again. I am almost ugly enough to-day to talk politics. Wah!



The Wrecked Howick Pavilion. A view of a portion of the wrecked Howick Pavilion in which the Ottawa Winter Fair was being held.

all the awards. The same happened in Hampshire and Suffolks. John Kelly, of Shakespeare, had all the entries and got all the awards. Long-wooled grades or crosses and short-wooled grades or crosses were not fully judged Tuesday evening, and owing to the boiler explosion Wednesday morning no more judging was done.

POULTRY AT THE OTTAWA FAIR.

The poultry department of the Ottawa Winter Fair is to be commended in spite of the unhappy termination of the whole event. Quality and utility are two outstanding features of the whole poultry exhibit and this year's assembly of birds appeared like the consummation of an effort to make it useful as well as attractive and spectacular. In order to advance the genuine usefulness of what is generally a fancier's exhibit "sales classes" have been added to the prize list and this year's exhibit was in accordance with the scheme. The birds in these classes may be purchased by an ordinary poultry raiser at a price which one ordinary poultryman might quote or bid another. This makes it possible for a farmer, if he wishes, to obtain a bird or pen of birds with which to replenish a flock or start a new one.

The number of entries at the show has been surpassed on previous years, but the quality never has been better. The strengthening of the breeding classes has proved beneficial and now it is a strong feature of the feathered exhibit. It seems nothing short of calamity to see so nice an exhibit demoralized after attaining such a stage of excellence.

Whenever I ask a reasonable question of the readers of "The Advocate" I never fail to have it answered. Some weeks ago I wanted to know something about the mousing hawks that were so busy and so welcome in the neighborhood. All the way from Scotch Lane, New Brunswick, William H. Moore sends me the information I wanted. I think I am safe in identifying the hawks from his descriptions as red-tailed hawks and rough-legged hawks. About these he says:

"The rufous colored upper side of the tail of the red-tailed hawk is readily conspicuous as the bird wheels in his flight and one is enabled to observe the upper side of the tail.

"Another large winter hawk is the rough-legged (its legs are feathered to the base of its toes). It is more or less blackish, with a blackish band across the breast. A very variably colored bird, rare here in Central New Brunswick. I have had a close acquaintance with only two specimens, one of which I mounted. The other a blackish plumaged bird, I dismounted from a tree but failed to secure it.



A Winning Calf Herd. This excellent lot of Holstein calves are included in Hulet's sale.

at the Nova completed on attendance was titution. Of New Bruns- parts of An- vince of Nova the charac- the course of asful of the the past ten more and the Maritime agricultural toward the ons is gradu- before many es taking the ded to take parts of Am-

Total fat points 198.48 198.80 178.78 169.78 185.00 156.05 132.24

259.09 249.95 240.49 227.08 225.85 189.10 168.97 205.37 195.75 181.34 157.11

188.41 181.63 174.36 162.68 151.77 147.35 180.88 161.90 159.08 149.46 134.72 121.45

161.57 121.21 82.02

213.96 208.62 201.84 200.16

229.91

Ormiston & getown. er three: 1, B, Graham, and 4, Rus- Armstrong. chard Bros.; at. Heifer, e Bros.; 2, Heifer, one le Bros.; 2, r under one

"The other small bird that fluttered up and sang was undoubtedly a horned lark. They are common here and often sing at such a height as to be invisible to the naked eye."

I think that most of our visiting hawks were of the rough-legged variety and those that remain with us all winter are red-tailed hawks. To Mr. Moore's description I wish to add that they are apparently industrious meusers and should be encouraged.

.....

Mr. James Marshall, of Wentworth County, is of the opinion that in my relentless pursuit of the demon rabbit I was laboring under a grievous error. He has rabbits on his place and over twelve thousand fruit trees and the rabbits have done no injury. I think the explanation is that his trees are mostly cherry, plum, peach and pear, I have been told that rabbits do not care for the bark of these trees, but that they are fond of apple-tree bark I am quite certain. In two old orchards that I see every day there are branches that were broken down during the November storm and they are now peeled as white as bone by the rabbits. They seem to prefer apple-tree bark to anything else they can find just now. But I am told that they are also fond of mallows and where this weed is to be found will feed on it almost exclusively. Though the rabbits have not damaged any young apple trees on me, there are others in the neighborhood who have been troubled by them and a friend who has a large orchard in Virginia wrote to me some time ago saying that last winter the cotton-tail rabbits girdled and destroyed over five hundred of his young trees. I am afraid the weight of evidence is all against the rabbits and though the little creatures are pretty to have about they have no outstanding virtues that should lead anyone with an orchard to take chances with them.

.....

There are several paragraphs in Mr. Marshall's letter which I shall leave to the editor to use elsewhere, but there is one that appeals to me so much I am going to quote it here. Speaking of the ravages of mice among fruit trees he says: "A good mouse dog will clear orchards of mice. I had one that, while I was pruning trees, killed thirty mice in about two hours. This dog was so trained that while I was pruning trees in another part of the orchard in frosty weather, he would by himself carry a heavy pick from place to place and throw it down at the hole where he found the scent of mice and look at me. Then I would walk to him and pick the frozen ground and he would perhaps get two field mice. In this way he caught about two hundred."

This anecdote reveals so high an order of in-

telligence on the part of the dog that I am tempted to ask readers to send me their best dog stories. The scientist Romances collected many dog stories to show that dogs can reason, but I do not think he has a better one than Mr. Marshall's. You would have to limit your definition of reason to very narrow bounds before you could say that a dog that would carry a pick for such a purpose was not capable of reasoning. Can anyone give a better instance of intelligence on the part of a dog? I have only one story to give and, as I explained at the time it happened, it is entirely puzzling. You may remember that I told last summer how the children lost a parcel one night when returning from the village. It was missed before they turned the corner for home, so it must have been dropped some distance up the road. I told one of the boys that he would have to get up at daybreak and go back to look for the parcel, but at daybreak Sheppy came to the door with the parcel in his mouth. He was never trained to carry parcels and from that day to this has not been known to carry another. Yet he went away from home, which is not his habit, and got that one. I have never been able to figure out how he came to do such a thing, for it is his one flash of unusual intelligence. I hope that if friends will go to the trouble to tell me their good dog stories they will give a little history of the general intelligence of the dog. This sort of an enquiry may not seem important, but dog stories always interest me and I think they may interest and amuse other people. Moreover, if we keep at serious things all the time we will get bilious. I have been very serious for the past week and I think that is what is ailing me to-day.

The Osler Holstein Sale.

The second public sale of pure-bred Holstein cattle at Lakeview Stock Farm, Bronte., Ont., was held January 20th. A crowd of about five hundred enthusiastic Holstein breeders filled the large sale pavilion at the farm, and bidding was for the most part spirited and brisk, although at times it looked like a bargain day in heavy milkers. Colonel D. L. Perry, of Columbus, Ohio., was in extra good spirits, and his free run of humor kept the throng enlivened and materially aided in the disposal of the thirty-one head catalogued. Everything advertised was sold to the highest bidders, and on the whole prices were satisfactory. The eight-year-old Posch Inka Sylvia topped the scale at \$325, the second highest price being \$310 for the six-year-old Cherryvale Posch. Both these cows had excellent records behind them, and are bred in the purple. The entire lot, including several calves,

averaged \$164 each, and twenty-three head averaged \$201 each. The following is a list with the buyers of all those selling above \$100:

Lakeview Countess, John Richardson, Caladonia.....	\$200
Molly Pietertje Hartog De Kol, Dr. English, Hamilton Asylum Farm.....	295
Lakeview Artis, F. Hamilton, St. Catharines	295
Lakeview Valentine, K. R. Marshall, Dunbarton.....	210
Lakeview Hengerveld Aaggie 3rd, Mr. Follet, Saskatchewan.....	100
La Vita De Kol, W. G. Bailey, Hamilton ..	200
Posch Inka Sylvia, Gordon Gooderham, Bedford Park.....	325
Cherryvale Posch, W. S. Prouse, Tillsonburg.....	310
Canary Netherland, Dr. English.....	200
Lakeview Countess 2nd (twin), Dr. Holbrook, Hamilton Asylum.....	180
Lakeview Countess 3rd (twin), A. H. Teeple, Woodstock.....	190
Lakeview Dutchland Hengerveld 2nd, W. G. Bailey, Hamilton.....	155
Countess Cherryvale of Lakeview, F. Hamilton, St. Catharines	190
Cecil Wayne 2nd.....	200
Lakeview Countess Chase, W. G. Bailey, Hamilton	195
Lakeview Almada Fayne, F. Hamilton, St. Catharines	255
Lakeview King Inka De Kol 3rd, R. W. Newton, Woodstock	170
Lakeview Winnie, C. V. Robbins, River Blend.....	140
Arminta Canary, Biggar Bros., Oakville.....	255
Lakeview Dione Korndyke, K. R. Marshall, Dunbarton.....	195
Lakeview Beauty Hark, Fred Breckon, Mer-ton.....	150
Lakeview Winner (twin), A. H. Teeple.....	125
Aaggie Grace Manor Josephine, W. H. Smith, Toronto.....	115

Lewis Toole Dies Suddenly.

The retiring President of the Ontario Agricultural and Experimental Union, Lewis Toole, of Mt. Albert, Ont., died suddenly January 21st, at his home. Deeply interested in advanced agriculture, he was one of the early graduates of the Ontario Agricultural College, getting his diploma in 1879. He was instrumental in the founding of the Experimental Union over three decades ago and always followed closely the work of the Agricultural College and the advancement of his chosen calling. He was a leader not only in his own community, where he operated a large farm, but in the agriculture of all Canada.

Markets.

Toronto.

Receipts at the Union Stock-yards, West Toronto, on Monday, January 26, were 118 cars, comprising 2,011 cattle, 1,868 hogs, 408 sheep and lambs, 72 calves, and 47 horses. The cattle trade was very dull, and the prices certainly no higher. Choice, \$8.50; good, \$8 to \$8.25; common, \$7 to \$7.50; cows, \$4.50 to \$7.50; bulls, \$5.50 to \$7.50; feeders, \$7 to \$7.50; stockers, \$5.25 to \$6.50; milkers, \$60 to \$95; calves, \$6 to \$11.50. Sheep, \$5 to \$7.35; lambs, \$9.15 to \$9.60. Hogs, \$9 fed and watered, and \$8.65 f. o. b. cars.

REVIEW OF LAST WEEK'S MARKETS

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

	City.	Union.	Total.
Cars	10	455	455
Cattle	185	6,077	6,262
Hogs	102	9,608	9,710
Sheep	301	2,061	2,362
Calves	42	450	492
Horses	95	95	95

The total receipts of live stock at the two yards for the corresponding week of 1913 were:

	City.	Union.	Total.
Cars	20	357	377
Cattle	335	5,731	6,066
Hogs	23	5,023	5,046
Sheep	144	1,654	1,798
Calves	78	420	498
Horses	15	15	15

The combined receipts of live stock at the two yards for the past week show an increase of 78 car loads, 196 cattle, 4,664 hogs, 564 sheep and lambs, and 90 horses, but a decrease of 6 calves, compared with the corresponding week of 1913.

Receipts of live stock, especially cattle, for the past week, were fairly liberal, considering the season of the year.

Trade was slow and draggy on account of the drovers having bought their cattle at too high prices in the country, and, of course, they asked higher prices on the market, prices that the buyers refused to pay. On Monday, the highest price paid for the choicest steers was \$9 per cwt. But the common and medium cattle were 25 cents per cwt. lower, owing to too many cattle being offered. On Wednesday, the market was the slowest of the year thus far, and on Thursday there were over 1,000 fresh cattle on sale, which caused still lower prices to be offered, the market closing very weak. Stockers and feeders sold at higher prices than at any previous market this year. Sheep, lambs, and calves, remained firm all week, but hogs were a little lower at the close of the week.

Butchers.—Choice butcher steers at the close of the week sold at \$8.50; good steers, \$8 to \$8.25; medium, \$7.25 to \$7.75; common, \$6 to \$6.25 and \$6.75; choice cows, \$7 to \$7.50; good cows, \$6.25 to \$6.75; medium cows, \$5.50 to \$6; common, \$5 to \$5.25; canners and cutters, \$3.75 to \$4.50; choice bulls, \$7 to \$7.50; good bulls, \$6 to \$6.75; medium bulls, \$5.50 to \$6; bologna bulls, \$5 to \$5.25.

Stockers and Feeders.—Feeders, 750 to 850 lbs., sold at \$7 to \$7.40; stockers, 500 to 700 lbs., at \$6 to \$6.50.

Milkers and Springers.—Fresh milkers and forward springers were in excellent demand, with prices very firm all week. Prices ranged from \$60 to \$105, several cows selling over the \$100 mark. Backward springers sold at \$45 to \$55 each.

Veal Calves.—The demand for veal calves was greater than the supply, which caused prices to be as firm as ever. Choice veals sold at \$10.50 to \$11.50, and sometimes \$12 was paid; good calves, \$9 to \$10; medium, \$7.50 to \$8.50; common and rough calves, \$5.60 to \$6.50.

Sheep and Lambs.—The quality of the sheep and lambs, especially the latter, was not nearly as good as usual. Sheep,

ewes, \$6.25 to \$7; bucks, \$5.50 to \$6; lambs, \$9.25 to \$9.75, with the bucks culled out at the latter price.

Hogs.—Receipts were moderate up to Thursday, when 3,304 were on sale, 870 of which came from Alberta. These Alberta hogs were of fine quality. Up to Thursday, hogs fed and watered sold at \$9.25, and \$8.90 f. o. b. cars; but on Thursday \$9.15 fed and watered, and \$8.85 f. o. b. cars, were the prices reported as being paid.

Horses.—Receipts of horses were fairly liberal at the Union Horse Exchange, Union Stock-yards. Trade was reported dull, with only a limited number of sales. Drafters, 1,600 to 1,800 lbs., \$250; general-purpose horses, \$175 to \$225; expressers, \$150 to \$200; drivers, \$100 to \$175; serviceably sound, from \$25 to \$65 each.

BREADSTUFFS.

Wheat.—Ontario, No. 2 red, white or mixed, 85c. to 86c., outside; 89c., track, Toronto; Manitoba, No. 1 northern, 92c.; No. 2 northern, 93c. to 94c.

Oats.—Ontario, new, No. 2 white, 34c. to 35c., outside; 38c. to 39c., track, Toronto; Manitoba, No. 2, 41c.; No. 3, 39c., lake ports.

Rye.—No. 2, 63c. to 64c., outside.

Peas.—No. 2, 98c. to \$1, outside.

Buckwheat.—No. 2, 75c. to 76c., outside.

Corn.—American, No. 3 yellow, 70c., all rail, track, Toronto.

Barley.—For malting, 54c. to 55c.; for feed, 43c. to 45c.

Flour.—Ontario 90-per-cent. new winter-wheat patents, \$3.65, bulk, seaboard. Manitoba flour—Prices at Toronto are: First patents, \$5.30; second patents, \$4.80; in cotton, 10c. more; strong bakers', \$4.60, in jute.

HAY AND MILLFEED.

Hay.—Baled, car lots, track, Toronto, No. 1, \$14 to \$15.

Straw.—Baled, car lots, track, Toronto, \$9 to \$10.

Bran.—Manitoba bran, \$22.50 to

\$23.50 in bags, track, Toronto; shorts, \$23 to \$25; Ontario bran, \$23, in bags; shorts, \$24; middlings, \$26.

COUNTRY PRODUCE.

Butter.—Market steady. Creamery pound rolls, 32c. to 34c.; creamery solids, 28c. to 30c.; separator dairy, 27c. to 28c.; store lots, 24c. to 25c.

Eggs.—New-laid, 40c. to 42c.; cold-storage, 35c. to 36c.; cold-storage selects, 38c.

Cheese.—Old, large, 15c.; twins, 15c.; new, large, 14c.; twins, 14c.

Beans.—Imported, hand-picked, \$2.25 per bushel; Canadians, hand-picked, \$2.25; primes, \$2.

Potatoes.—Car lots of Ontario, track, Toronto, 80c. to 85c.; New Brunswick Delawares, 90c. to 95c. per bag, track, Toronto.

Poultry.—Receipts moderate. Prices about steady. Turkeys dressed, 20c. to 22c.; geese, 15c. to 16c.; ducks, 16c. to 17c.; chickens, 16c. to 18c.; hens, 12c. to 14c.

TORONTO SEED MARKET.

Alsike, No. 1, per bushel, \$8.50 to \$9; alsike, No. 2, per bushel, \$7.50; alsike, No. 3, per bushel, \$6 to \$7; timothy, No. 1, per bushel, \$2.75 to \$3.25; timothy, No. 2, per bushel, \$2 to \$2.50; red clover, per bushel, \$8 to \$8.50.

HIDES AND SKINS.

No. 1 inspected steers and cows, 13c.; No. 2 inspected steers and cows, 12c.; city hides, 13c.; country hides, cured, 13c.; calf skins, per lb., 16c.; lamb skins and pelts, 75c. to \$1.25; horse hair, 38c. to 40c.; horse hides, No. 1, \$3.50 to \$4; tallow, No. 1, per lb., 5c. to 7c.

FRUITS AND VEGETABLES.

Apples, No. 1 Spies, \$4.50 to \$5; Greenings, \$3.50 to \$4; Baldwins, \$3.50 to \$4; Canadian onions, bags, \$2.25; cabbages, per case, \$2, and 75c. to \$1 per dozen; turnips, 50c. per bag; beets, \$1.25 per bag; carrots, \$1 per bag; parsnips, \$1 per bag; Canadian celery, 80c. to \$1 per dozen.

Dr. Maria Montessori



Build a Reserve Fund

WE believe it to be good business for every man to build up a strong Reserve Fund. A bank starts building up its Reserve Fund the first year it is in business, and its example is a good one for you to follow.

Since 1832 we have provided the public a safe place for their funds. On Savings Accounts we allow 3% interest, compounded twice a year.

The Bank of Nova Scotia

CAPITAL : : : : \$ 5,000,000 RESERVE FUND : : : : 10,000,000

BRANCHES OF THIS BANK in every Canadian Province, and in Newfoundland, West Indies, Boston, Chicago and New York

Buffalo.

Cattle.—Cattle trade at Buffalo the past week was somewhat weaker, although a generally satisfactory market was had, the West showing lower levels, and kinds of cattle coming not meeting the demand for the well-finished grades. Canadians were in very light receipts, there not being over four or five loads from across the border. The preceding week shipping steers sold high as compared with the West, and the Eastern order buyers came back and maintained that they were proving expensive, as compared with Chicago, for the reason that they did not show the percentage kill, and buyers insisted that they would have to get these grades from 15c. to 25c. lower, which price list finally prevailed. Some authorities are saying that the big end of the shipping steers coming now are not showing complete finish, but are rather on the warmed-up order, and sellers are advising shippers and feeders to hold their good-weight steers and finish them up right, as the results will prove far more satisfactory. Generally speaking, shipping steers have not landed in a manner satisfactory to shippers, but undoubtedly have brought full market values, as compared with Western cattle. In the butchering line conditions are very much the same, few choice to prime steers and heifers coming, and too many of the thin, lightish ones. Result of too many commoner ones being offered, was a dime to fifteen cents lower, and it was rather a slow affair at that. Canners were unchanged. Stockers and feeders were given a little boost, orders being on file for quite a few of these, and bulls sold as high as for any time during the year, and are considered higher than other kinds. Only the very best fresh cows and springers brought good, strong prices. Receipts for the week were 3,925 head, as compared with 5,075 the previous week, and 4,875 for the corresponding week last year.

Quotations: Heavy steers, good to choice, \$8.35 to \$9; heavy steers, medium to good, \$8 to \$8.35; butcher steers, good to choice, \$8 to \$8.25; butcher steers, medium to good, \$7.50 to \$8; butcher steers, common, \$6.75 to \$7.25; best cows, \$6.25 to \$6.75; fair to good cows, \$5.25 to \$6.25; cutter cows, \$4 to \$4.25; canner cows, \$3.25 to \$3.75; good to choice heifers, \$7.25 to \$7.75; fair to good, fat heifers, \$6.50 to \$7; light and common, \$5 to \$5.50; best stockers and feeders, \$6.50 to \$7; fair to good, \$6 to \$6.50; common, \$5 to \$5.50; stock bulls, \$5 to \$5.25; bologna bulls, \$6.25 to \$6.75; fat bulls, \$7 to \$7.50; best milk-

ers and springers, \$60 to \$85; common, \$40 to \$50.

Hogs.—Good market for hogs all last week, best grades ranging from \$8.65 to \$8.80, with pigs selling from \$8.40 to \$8.65; roughs, \$7.65 to \$7.85; stags, \$6 to \$6.75. Receipts for week 36,000, as against 43,520 for the previous week, and 43,680 head a year ago.

Sheep and Lambs.—Receipts for the opening day of the week were heaviest of the year, being 25,000. The result was that prices went off a quarter, top lambs, bringing mostly from \$8 to \$8.10. The latter part of the week witnessed a reaction, Friday and Saturday's range on top lambs being mostly \$7.25 to \$7.50. Best wether sheep, \$5.75 to \$6; ewes, \$5.25 to \$5.50; cull sheep, \$4.50 down. Top price for yearling wethers was \$7.15. Receipts for week, 34,300; previous week, 34,800; year ago, 35,400.

Calves.—Latter part of last week was the high day for the week, tops bringing up to \$12.50, general price for balance of the week for tops being \$12. Culls, \$10 down, and fed calves, \$5 to \$6.50. Deck of vealers from Canada that were not choice, being only fair kinds. The top out of these sold at \$10.50, the tail end, which were light and thin, on the "bob-veal" order, going at \$8. Receipts for week, 1,325; previous week, 1,350; year ago, 1,725.

Butter.—Trade light; lower Creamery, prints, 33c.; dairy, choice to fancy, 29c. to 30c.; dairy, fair to good, 25c. to 26c.

Cheese.—Slow; steady. Fancy, new, 18c. to 19c.; good to choice, 16c. to 17c.; poor to common, 14c. to 15c.

Eggs.—Trade light; steady. White, fancy, 38c.; fancy, mixed, 36c. to 37c.

Dressed Poultry.—Active; firm. Turkeys, per lb., 24c. to 25c.; fowls, fancy, 17c.; chickens, fancy, 18c. to 19c.; ducks, per lb., 18c. to 21c.; geese, per lb., 18c. to 16c.

Live Poultry.—Demand good; steady. Turkeys, per lb., 19c. to 21c.; fowls, choice, 15c. to 16c.; fowls, fair to good, 14c. to 15c.; ducks, per lb., 17c. to 18c.; geese, per lb., 14c. to 15c.

Montreal.

Live Stock.—Some very choice cattle were offered here last week, and prices very nearly reached a new record, sales taking place at 9c. per lb., this being for Western Ontario stock. For the most part, however, choice butchers' steers were purchased at 8c. to 8 1/2c., while fine were 7 1/2c. to 8c.; good, 7c. to 7 1/2c., and medium from 6c. to 7c., common stock ranging down to 4c. per lb. Good butchers' cows were 6 1/2c. to 7c., and poor, 4 1/2c. to 5c. Sheep ranged from 5 1/2c. to 5 3/4c. per lb., while lambs were 8c. to 8 1/2c. Calves, as usual, ranged from \$3 to \$15 each, to cover all qualities. Hogs were 9c. for selects; 7 1/2c. for sows, and 5c. to 5 1/2c. for stags. Some Western stock ranged at 9c. to 9 1/2c., weighed off cars.

Horses.—There was very little change in the horse market. Heavy draft, weighing from 1,500 to 1,700 lbs., sold at \$275 to \$325 each; light draft, 1,400 to 1,500 lbs., \$225 to \$250 each; broken-down, old animals, \$75 to \$125, and choicest saddle and carriage animals, \$350 to \$500 each.

Poultry.—The market was practically unchanged. Turkeys, 19c. to 21c. per lb.; ducks and chickens, 15c. to 18c.; fowl, 12c. to 14c.; geese, 14c. to 16c.

Dressed Hogs.—Dressed hogs were firm last week. Abattoir-dressed, fresh-killed stock, sold at 14c. per lb., while country-dressed sold at 13 1/2c. per lb. for light weights, and 12 1/2c. for heavy weights. Lard sold at 14c. to 14 1/2c. for pure, and 10 1/2c. to 10 1/4c. for compound.

Potatoes.—The market for potatoes showed no change. Green Mountains were quoted at 75c. to 80c. per bag, ex track, in-car lots, while Quebec varieties were 70c. per bag, ex track. In a jobbing way, prices were 15c. to 20c. higher, ex store. Bags weigh 90 lbs.

Honey and Syrup.—White-clover comb was 15c. to 16c. per lb.; extracted, 10 1/2c. to 11 1/2c.; dark comb, 13c. to 14c., and strained, 7 1/2c. to 8 1/2c. per lb. Tins of maple syrup sold at 9c. to 10c. per lb., while syrup in wood was 7c. to 8c., and maple sugar, 9c. to 10c. per lb.

Eggs.—Prices of eggs were again easier, owing to the increased supplies of fresh-laid. Strictly fresh stock was 42c. to 43c. per dozen, selected eggs being still

35c. to 36c.; No. 1 candled at 30c. to 31c., and No. 2 candled at 26c. to 27c.

Butter.—There was a fair trade in butter. Choice makes, 28 1/2c. to 29c. per lb., wholesale; fine butter, 27 1/2c. to 28c.; second grades, 26 1/2c. to 27c. Dairy butter, firm, at 23c. to 24c. per lb. for Ontarios, and 22c. to 22 1/2c. for Manitobas.

Grain.—No. 2 Western Canada oats were quoted at a slight advance, being 42c. per bushel, ex store, in car lots; No. 3 were 41c., and No. 1 feed, 39 1/2c.

Flour.—Manitoba first-patent flour was quoted at \$5.40 per barrel, in bags; seconds, \$4.90, and strong bakers', \$4.70. Ontario winter-wheat flour unchanged, at \$4.75 to \$5 for patents, and \$4.50 to \$4.60 per barrel, in wood, for straight rollers.

Millfeed.—Bran sold at \$21 per ton, and shorts at \$23, in bags; middlings, \$26, including bags. Mouille was \$29 to \$31 per ton for pure, and \$27 to \$28 for mixed.

Hay.—Prices were about steady. No. 1 pressed hay, car lots, Montreal, ex track, \$16 per ton, while No. 2 extra good was \$14, and No. 3 \$13.

Seed.—Timothy seed was steady. Dealers bid 5 1/2c. to 6 1/2c. per lb., country points. Alsike was about the same as a year ago, being \$8 to \$10 per bushel of 60 lbs. Red clover lower, at \$8 to \$9.50 per bushel.

Hides.—Beef hides were 12c., 13c. and 14c. for Nos. 3, 2 and 1, and lamb skins \$1.10 each, with horse hides ranging from \$1.75 for No. 2, to \$2.50 each for No. 1. Tallow sold at 1 1/2c. to 8c. for rough, and 5c. to 6 1/2c. for rendered.

Chicago.

Cattle.—Beeves, \$6.80 to \$9.50; Texas steers, \$6.90 to \$8.10; stockers and feeders, \$5.40 to \$8.20; cows and heifers, \$3.60 to \$8.60; calves, \$7.50 to \$11.

Hogs.—Light, \$8.05 to \$8.30; mixed, \$8.10 to \$8.35; heavy, \$8.10 to \$8.40; rough, \$8.10 to \$8.20; pigs, \$6.70 to \$8.10; bulk of sales, \$8.25 to \$8.35.

Sheep and Lambs.—Sheep, native, \$4.90 to \$6.10; yearlings, \$5.80 to \$7.25; lambs, native, \$6.20 to \$8.10.

Gossip.

Attention is called to the change of advertisement in this issue of Holstein cattle, the property of Wm. A. Rife. The bull advertised in our January 15th issue has already been sold, and Mr. Rife considers that for quick results "The Farmer's Advocate" gives great satisfaction.

George Gier & Son, breeders of Short-horn cattle, inform us that they are offering at present one of the very best young bulls they ever bred—a beautiful roan, a year old next March—and not a Canadian cross in his pedigree except Mildred's Royal. His dam is a grand cow, a heavy milker and first-class breeder. Her calf in 1911 was one of the first-prize herd of calves in Toronto, and in 1912 her calf was one of the second-prize herd of calves. Any person in need of a young bull will do well to see this calf before buying elsewhere.

SALE DATES CLAIMED.

February 4th.—T. H. Hassard, Markham, Ont.; imported Clydesdales and Percherons.

February 4th.—At Union Stock-yards, Toronto. Annual sale of Shorthorns, Manager, Robert Miller, Stouffville, Ont. February 9th and 10th.—Annual Combination Sale of pedigreed Clydesdales and Percherons, at Union Stock-yards, Toronto.

February 11th.—A. E. Hulet, Norwich, Ont.; Holsteins; dispersion.

February 10th.—Southern Ontario Consignment Sale Co., Tillsonburg, Ont.; Holsteins.

March 5th.—R. Nichol & Son, Hagersville, Ont.; Shorthorns and Clydesdales.

March 4th.—Annual Provincial sale of pure-bred cattle, at Guelph.

March 11th.—G. H. McKenzie, Thornhill, Ont.; Holsteins.

March 10th.—Norfolk Holstein-Friesian Breeders' Club, at Simcoe, Ont.; Holsteins.

March 12th.—H. R. Patterson, Paris, Ont.; Holsteins.

March 24th.—Bales Bros., Lansing, Ont.; Holsteins.

H. M. Vanderlip, proprietor of Elmhurst Stock Farm, Cainsville, where Shorthorn cattle and Berkshire pigs are kept, reports his stock wintering well, with a bright outlook for both breeds of stock. Through his advertisement in "The Farmer's Advocate" he has recently sold ten good sows and four boars to parties living in different parts of Canada. J. H. Shephard, Woodstock, Ont., secured the choice young bull, Elmhurst Chancellor, out of Eliza (imp.), and sired by Chancellor's Model. Some good young bulls, and a choice selection of brood sows, are now being offered. Many orders are booked for spring delivery.

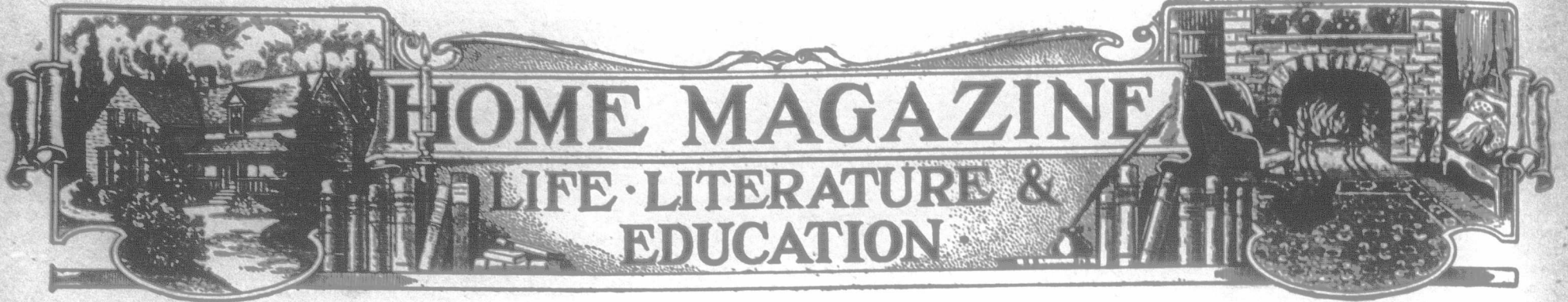
The sale of Holsteins by the Southern Ontario Consignment Sale Co., at Tillsonburg, on Tuesday, February 10th, promises to be interesting in the extreme. There are 75 head of choice Holsteins for sale, and most of them are in calf to the best bulls in Canada. There will be absolutely no danger of introducing any disease into the herd through the purchase of this stock, as it is all sold subject to inspection and the tuberculin test. The cattle may be seen the day previous to the sale if the purchaser wishes, and the consignors will be at the Royal Hotel to give information regarding the stock. R. J. Kelly, of Tillsonburg, will send a catalogue to any address, and everything will be done to give satisfaction at this popular annual sale.

Hodgkinson & Tisdale are consigning to the Clydesdale sale, to be held at the Union Stock-yards, Toronto, February 9th, their entire stock of imported and Canadian-bred Clydesdale mares, including the noted show mare, College Queen (imp.), a black four-year-old, supposed to be in foal, and good enough to show anywhere. She is a granddaughter of Baron's Pride. Also included is Lady Bain, a good brood and show mare, the mother of a fine filly to be sold. Miss Fotheringham (imp.) is a proven brood mare of merit, having raised two good colts, one of which is included in this sale. She is again bred. Other choice mares of different ages are offered. Get a mare at your own price at this sale, as Hodgkinson & Tisdale are going to confine their horse-breeding operations to Percherons in future.

Duncan Brown & Sons write: "Since writing you last, we have sold to J. M. Gardhouse, of Weston, Ont., a Standard-bred mare, Queen Melrose, and she has done well for him in the show-ring. We sold to Grant Colley, of Sheldon, Ont., Maggie C., which has certainly done well on the race-track for a young mare. We have one Standard-bred colt, Alvin Brino, coming one year old, that we think a lot of, and will sell at a reasonable price. In Shorthorns, we sold one bull to John R. Gow & Son, of Wallacetown, which took first prize wherever shown; also sold one bull to Moore & Son, Frome; one bull to Mr. Monteith, Middlemarch, a bull to A. McArthur, Lawrence Station, a bull to B. M. Reid, Thamesville; a bull to R. G. Griffin, of Puslinch. All of those were got by Trout Creek Wonder, and all the purchasers are delighted with them. We have a few more, but they are young Scottish Roses, Bruce Mayflowers, and Strathallan families."

Trade Topic.

Province by Province, the business conditions of Canada were reviewed by Sir Edmund Walker at the annual meeting of the Canadian Bank of Commerce, and while there is a spirit of optimism shown in connection with each Province, referring to the period of "tight money" the President said, "The world-wide depreciation of national credit continues, and nothing but a rigorous curtailment of expenditure, coupled with a return of easy money can improve the present condition of affairs." With all the tightness, the demand for fresh capital is unabated, and this leads to the belief that no recuperation is likely to occur until capital again accumulates in some volume. Money is likely to be dear, but trade has been prosperous, and is likely to be yet, with any reduction in the volume of business, large sums may soon be diverted to the security market.



The Turn of the Road.

By Anna Sterns

It may be a long way to the turn in the road,
The path may be rugged and heavy our load,
Our hearts grown faint from hope deferred,
And sad with needless yearning.

But some day, somewhere, the turn will appear,
Then will vanish our weariness, doubt and fear,
Our hearts will be filled with joy and cheer
And strength and hope returning.

The sky overhead may be leaden and gray,
The wind cold and chilling, and dreary the day;
Not a glint of sunshine across the way
To relieve the day's dull seeming.

But a rift in the clouds will some day greet our view,
The bright, eager sunbeams, come struggling through,
Giving glimpses beyond of the clear azure blue,
And a brighter to-morrow revealing.

Our hearts may be burdened with sorrow and care,
Too sad for a song and too weary for prayer;
Dismayed at the troubles we meet everywhere,
While our strength is swiftly waning.

But some day, faint heart, comes a turn in the tide;
God's love is so deep, His mercy so wide;
Neither sunshine nor storm can forever abide;
Each one, as we need, we're receiving.

Then let's travel joyously, blithely along,
With sometimes a prayer, and often a song,
And always a lift for the weak in the throng,
Till we come to the long road's turning.

The Passing of Lord Strathcona.

At his London home, 28 Grosvenor Square, Lord Strathcona and Mount Royal, passed quietly into the Beyond on the 21st of January, and Canada laments once more the farewell to one of her brigade of the grand old men who have made the great Dominion what it is.

The immediate cause of the statesman's death was an attack of catarrh, although he had never recovered from the shock of Lady Strathcona's death in November last. One week after her funeral he made his last public appearance, the occasion being a meeting of the Hudson's Bay Company, at which he presided; but until two months ago he attended his office every day, remaining often, as had been his custom, until long after night.

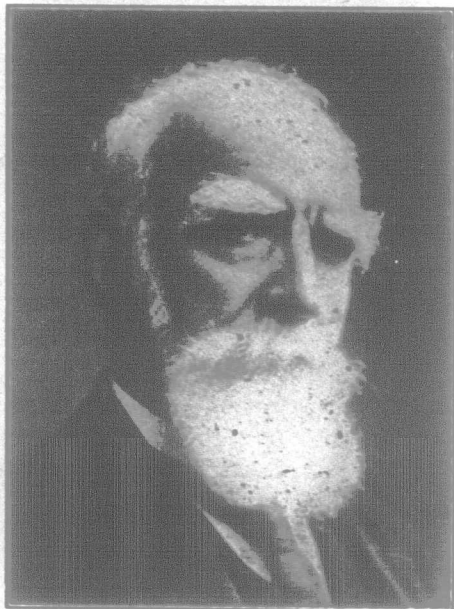
His last visit to Canada was in August, 1913, when he came to attend the meeting of the American Bar Association in Montreal.

His daughter, the Hon. Mrs. Howard, succeeds to his title.

Hon. Col. The Right Hon. Sir Donald Alexander Smith, First Baron Strathcona and Mount Royal, philanthropist, capitalist, and statesman, was born in Forres, Morayshire, Scotland, August 6th, 1820, and when quite young entered the service of the Hudson's Bay Company as a cadet, coming to Canada in 1838.

Thirteen years of his life were spent on the bleak Labrador coast, then he was transferred to the Northwest Territory, where promotions were showered upon him. He became chief factor, then resident governor and chief commissioner of the company in Canada, but it was the Red River Settlement insurrection of 1869-70 which launched him upon the sea of public life in the Dominion. He was appointed a special commissioner to enquire into the causes of the rebellion, and so great was the tact and ability which he displayed in connection with the work, that henceforth he was slated for prominence.

In 1870 he was returned to the Legislature for Winnipeg and St. John, and was also returned for Selkirk in the



The Late Lord Strathcona and Mount Royal.

House of Commons, a seat that he retained until 1880, when he was defeated in a bye-election. But his popularity was increasing. In 1887 he was returned to the Commons for Montreal West, by a majority of 1,450, and in 1891 was re-elected by a majority of 3,706. At the beginning of his political career, it is necessary to remark, he was a supporter of Sir John A. Macdonald, but in 1873, at the time of the "Pacific Scandal," he went over to the Liberals, giving Sir John an independent support, however, on the return of the latter to power in 1878.

Lord Strathcona's ability especially manifested itself in the pushing through, in the face of great difficulty, of the Canadian Pacific Railway, and one of his red-letter days was the one upon which he drove the golden spike into the tie that marked the joining of the C. P. R. rails from the East and the West at Craigellachie, B. C.

In the words of Mr. J. J. Hill, "the one person to whose efforts and to whose confidence in the growth of our country, our success in early railway development is due, is Sir Donald A. Smith," and it was in recognition of this that Queen Victoria, in 1886, created him a Knight Commander of the Order of St. Michael and St. George. Ten years later she advanced him to be a Knight Grand Cross in the same order, and in 1897 raised him to the Peerage as Baron Strathcona and Mount Royal. In 1908 he was appointed a G. C. V. O., and became a Fellow of the Royal Society.

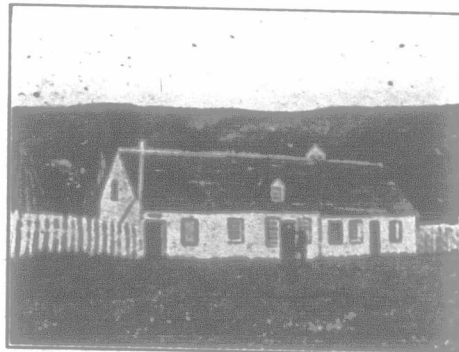
From 1896, at which time he was chosen to represent the Dominion of Canada as High Commissioner in London, Lord Strathcona retired completely from politics, but his numberless charities and his ceaseless devotion to the land of his adoption never ceased. Indeed, the list of his donations to various

causes in Canada, were they related in detail, would require a page to themselves. In 1887, with Lord Mount-Stephen, he gave \$1,000,000 to build and endow the Royal Victoria Hospital in Montreal, following up the initial gift by a later donation of \$800,000. To McGill University, Montreal, he has given in all, over \$1,000,000, while his was the honor of being the first founder of a University Annex for the higher education of women in Canada, the Royal Victoria College for Women, in connection with McGill. At the time of the South African war his patriotism found expression in the raising and maintaining of the Strathcona Horse, which did effective duty; while a more tender gift, perhaps, was his donation of a fully-equipped hospital ship to carry on the work of Dr. Wilfred Grenfell along the Labrador coast.

In finance and education, Lord Strathcona had many responsibilities and honors thrust upon him. In 1887 he was made President of the Bank of Montreal, and at various times he was given the degree of LL.D., by Cambridge University, and the Universities of Yale, Aberdeen, Laval, Toronto, Queen's, Ottawa, St. Andrew's, and Durham. In 1903 he was made Chancellor of the University of Aberdeen.

Lord Strathcona was always deeply interested in art, and gradually built up a fine collection, a notable purchase being that of Breton's "First Communion," for which he paid the sum of \$45,000. Many readers will remember the picture which occupied a place of honor in the Art Gallery at the Toronto Exhibition (C. N. E.) some years ago.

In him has passed a man of broad sympathies and deep insight, "a man of untiring industry and dauntless enterprise," an Imperialist, and a Canadian.



Lord Strathcona's Old Home, Rigolet, Labrador.

Little Trips Among the Eminent.

The Discoverers of the Mississippi.

In 1672, the Count de Frontenac, a gallant but haughty and headstrong soldier, of old and noble family, was appointed Governor of "New France." Unlike some of the Governors of early Canada who were intent only on filling their own coffers, he appears to have been throughout anxious for the prosperity of the colony, and his administrative ability enabled him to see and determined him to follow, for the most part, the plans of M. Talon for the exploration, discovery and colonization of the new continent.

Talon, some time before his departure for France in 1672, had heard from the Indians of a great Western river, which they called the "Mechasepe," and had even appointed two agents to the task of exploring it, but it was during the administration of Count Frontenac that the plan came to fruition. These two agents were Louis Joliet and Father Jacques Marquette.

Joliet, whose name still lives in the place-names of Quebec as his story lives in history, was the son of a wagon-maker, and was born in Quebec in 1645. He was educated by the Jesuits in their college, but eventually became a fur-trader, and it was because of his familiarity with the Indian languages and customs as learned while following this career, that he was chosen by Talon, in 1669, to determine the copper-mining possibilities of the Lake Superior coast. In passing, it may be noted, that he was the first native Canadian whose name has become illustrious.

Early in 1673, and after Talon had returned to France, Joliet joined Father Marquette at the St. Ignace mission, on the Strait of Michillimackinac, and on the 17th of May the two set out in two birch-bark canoes, with five men, on their long and tedious journey.

Reaching the Fox river, they found themselves in the great prairie country, and on the 7th of June reached the country of the Miamis, where, to their surprise, they found a large cross decorated with deer skins, red girdles, and bows and arrows suspended thereon as an offering to the Great Manitou of the French—so far inland had penetrated some vague inkling of the religion taught by the missionaries.

Everywhere the Indians tried to dissuade them from venturing to the Mississippi. There were fierce tribes there, they said, who put every stranger to death, also a demon at one point of the river whose roar could be heard a long way off; but the Frenchmen paddled steadily on, portaging to the Wisconsin river, and so on to the "great river," the Mississippi, which they reached on the 17th of June, 1673, the first white men who ever set eyes upon it in these northern regions.

In their journals they have told about the journey southward, of the drifting downward day after day; of the herds of buffalo on the shores; of how they landed at night to cook their frugal meal, and, for fear of hostile Indians, slept anchored some distance out upon the water.

For some time no Indians were to be seen, then one day footprints were discovered in the mud leading to a path through the forest.

Joliet and Marquette followed it in silence, and presently came to an Indian village, where the inhabitants came swarming out of the huts to see so unaccustomed a sight. Four men advanced to meet the venturers, and Father Marquette has told in his journal of his relief on seeing that they wore some garments of French cloth.

The Indians were, as it proved, of the Illinois tribe, and so a welcome was ready for the French voyageurs, albeit the welcome assumed a rather startling form. They were taken to the chief, who, we are told, received them "after a singular fashion meant to do them honor. He stood stark naked at the door of a large wigwam, holding up both hands as if to shield his eyes. 'Frenchmen,' he said, 'how bright the sun shines when you come to visit us! All our village awaits you, and you shall enter our village in peace.'"

After being feasted on porridge of Indian meal boiled with grease, fish, cooked dog and buffalo meat, the explorers returned to the Mississippi. Thence on again,—past the yellow, in-pouring flood of the Missouri, past the Ohio, past dense marshes of cane where millions of mosquitoes sang paeans of triumph over every loiterer, past Indian villages where earthen pots and platters were noted—until at last the mouth of the Arkansas river was reached. Here, apprehensive that they were nearing the gulf, and afraid of the Spaniards who overran the Southern seas, they turned to come back.

Dr. Maria Montessori

Making way wearily up stream, they at last reached the Illinois, which they followed, portaging and paddling again until the spot was reached whereon stands the modern city of Chicago. Embarking there on Lake Michigan, they finally reached Michillimackinac, after having paddled over 2,500 miles.

From Michillimackinac, Joliet went on to Quebec. Subsequently, he made an overland journey to Hudson's Bay, and explored the coast of Labrador. In reward for his services, he had been given a grant of the Island of Anticosti, but in 1690, Sir William Phipps, on his way to attack Quebec, attacked and burned his establishment, and took his wife and her mother prisoners. In 1699 or 1700, Joliet died, poor and forsaken, as did so many whose names shine on the deathless pages of history.

Father Marquette, who had remained by the great lakes to teach his Miamis, finished his life-work among these tribes of the West, and that before many months had passed. On the 25th of October, 1674, he set out with ten canoes, two Frenchmen and some Indians, to found a mission, to be called "The Immaculate Conception," at the chief town of the Illinois. His spirit was willing, but he had come from the Mississippi broken in health, and before long began to have hemorrhages. It was impossible for him to go on, so the party landed, built a hut, and prepared to spend the winter.

In March, he set out again, the little feet floating down over the swollen waters of the streams, while Father Marquette lost no opportunity to preach to the Indians on the way.

His strength, however, began to fail rapidly, and the party turned back again towards Michillimackinac. On the 19th of May, 1675, Marquette felt that he was dying. A landing was made, and a hut built of bark and branches, into which the leader was carried. He requested to be left alone to his devotions, and there, in that little booth, at the early age of thirty-eight, he died, "like the heroic missionary-explorer, Livingstone; in communion with his Maker."—(Withrow.)

As he had requested, he was buried there beside the hut, but in 1676 his bones were brought to St. Ignace by some Ottawa Indians whom he had taught, and were buried beneath the floor of the mission chapel.

A National Night.

By "Rob Roy," Halton Co., Ont. Variety is the spice of life. This is true in a general way, but especially so in any debating or literary society. Whether you have a Farmers' Club, Epworth League, Christian Endeavor, or whatever form of organization you belong to, plan to have a "National Night" this winter, and see how interesting it will be.

Arrange for the meeting carefully, and advertise it well. Secure four speakers and four singers. If possible, get speakers who are popular, and good speakers. Start the meeting with a speaker on the "Glories of England," and have the singer sing "The Death of Nelson." Then the speaker for Ireland, and either "The Irishman's Toast," or the "Shamrock." The speaker for Scotland would now follow, with the "Hieland's Toast" for Scotland's song. The audience will now be in splendid shape for a speech on "Canada," and the singing of "The Maple Leaf Forever."

The success of the meeting, of course, depends on the ability of the speakers and the singers. Choose these wisely, and you will not only have a pleasant, but a most profitable evening.

Words of Wisdom.

A man should inure himself to voluntary labor, and not give up to indulgence and pleasure, as they beget no good constitution of body nor knowledge of mind.—Socrates.

A man who gives his children habits of industry, provides for them better than by giving them a fortune.—Whately.

Application is the price to be paid for mental acquisition. To have the harvest we must sow the seed.—Bailey.

Every industrious man is a useful man.—Emmons.

Hope's Quiet Hour.

A Great Company.

The Lord gave the word: great was the Company of those that published it.—Ps. lxxviii: 11.

"Gathering strength from every nation, Every kindred, tribe, and tongue, Hark, that everlasting anthem, Hark, that glorious tide of song, Floods the valleys with its music, Echoes from the lasting hills, Onward, upward, till the temple Of the living GOD it fills."

"The Lord gave the Word," the Divine Voice came quietly and naturally from human lips in the quiet fields of Galilee and the narrow, crowded streets of Jerusalem. His message—the faith once delivered to chosen witnesses—has proved its power to carry light into the dark

bath was an unheard-of thing there twenty years ago, now they take their Saturday bath and dress in clean clothes for the Sunday services. If no regular services can be attended, they meet in a house for prayer. For many years the missionaries could see no result of their teaching, but suddenly—during the last four years—a great change came. The natives are eager to do their share in publishing the Word of God. Last year they contributed \$600 out of their scanty funds; and when another tribe was discovered, 1,000 miles away, twelve of them volunteered to go with a missionary to tell the good tidings of God's love. They started off, but were stopped by the cold of winter. Next summer they hope to be able to reach those who have not heard the wonderful news.

I have lately been reading the story of Hudson Taylor's fearless preaching in China, in the midst of constant danger, great discomforts, and apparently insurmountable difficulties. He was so anxious to reach the Chinese with his message that he became as far as possible one of themselves. He wore their dress,

And as to money, what flight of imagination could have suggested a million and a half sterling given in answer to prayer within fifty years? A million five hundred thousand pounds, not dollars, put into their hands for the spread of the Gospel in China, and that without a collection or a single appeal for financial help. . . . No, they only prayed and trusted, the future veiled from their eyes. All that Hudson Taylor saw was the great need and the unutterable privilege of giving oneself, one's all, to meet it, in fellowship with Christ."

The Company of those that publish the Word of God is not only great, it is increasing all the time. Those who gladly hear the message pass it on to others, at home and abroad. Sometimes they are very unlikely messengers. On the 13th of July, 1909, the "Catch-my-Pal Society" sprang into existence. A Presbyterian minister in Ireland persuaded six men, who were lounging near a lamp-post, to sign the pledge. He told them they could do far more to solve the drink problem in their city than any six ministers. He sent them out to catch men, asking each to bring another fellow the following week. They succeeded, and then twelve were sent on the same errand. At the next meeting thirty-one men turned up, and all went away fired with the idea of catching others to take the pledge of total abstinence. The next meeting found the new society still enthusiastic and still growing rapidly. There were 105 men in the room, and 67 new men signed the pledge that night, and among these were some of the biggest drinkers in the city. The scene was most hilarious as these men came forward to put down their names. Men who had been accustomed to spend their evenings drinking in various taverns, not only signed the pledge, but were eager to catch their intemperate comrades. They wore a button, with clasped hands across it, and new members were said to "take the button." Total abstinence became the fashion in Armagh, and men bought beefsteak instead of drink. They began to go to church. The first Catch-my-Pal Church Parade filled the church to overflowing. Mr. Patterson, the founder of the new society, says: "I have seen more gratitude in women's eyes since July, 1909, than I saw during the whole of my ministry of seventeen years before that."

The lamp-post where the first six men had gathered became known as "The Teetotal Lamp." One man said to Mr. Patterson: "D'ye know, yir rivirince, there's a whole lot of fellas in Armagh who haven't taken the button yit, and they're afraid ov their lives to go near that lamp-post, for fear they'd catch the infeschun!"

Mr. Patterson went from town to town starting branches of the popular Society, which took so effectually in Lurgan that he says: "On the first Sunday of 1910 I preached at the first church parade of the Lurgan Branch. Eleven hundred men marched in a solemn procession through the streets to the church, and it was said that a publican who usually 'took' about fifty pounds a week, acknowledged that, on the Friday after the parade, only one half-crown was taken over the counter."

In one town, 84 men were at the first meeting. These not only "took the button," but they caught 87 before the next weekly meeting. The next week, 120 more were brought in.

"About 130,000 men and women joined the Union during the first year in Ireland," declares Mr. Patterson, "and almost 500 branches were formed in less than two years." At the first Anniversary Demonstration in Armagh, July 16, 1910, about 5,000 members attended.

You see how soon the men who discovered that sobriety was a good thing tried to pass on their knowledge to others.

We have heard the Word of God, and we are bound to do something to publish it. Are we helping forward the kingdom of Christ by example, by money, by words? If we are doing nothing to help the work, we are certainly hindering it. It is everybody's business. We have no right to hug our religion to ourselves, sharing it with nobody. Our text, as given in the R. V. reads: "The Lord giveth the Word: The women that publish the tidings are a great host."

I saw a church full of those women the



"The Loveliest of Raphael's Virgins."

This Madonna, by Raphael, was recently sold for over \$500,000, to Duveen Bros., of London, New York, and Paris. It measures 23 x 17 inches, and was painted in 1505. Since 1835 it has been in the famous Panshanger collection of the late Earl Cowper, hence the name by which it is known, "The Cowper Madonna."

places of the earth. How is it to get there? "How shall they believe in Him of Whom they have not heard? and how shall they hear without a preacher?" asks St. Paul. The Lord gave the word and great is the Company of those who are publishing it.

Yesterday I heard a missionary speak of the wonderful changes which the Word of God had wrought among the Esquimaux on Herschel Island, at the mouth of the Mackenzie River. He had worked there for seventeen years, shut in by ice during nine months of every year. He said that twenty years ago the natives were unspeakably unclean—in body—as well as spiritually. Polygamy was common, and if too many girl-babies were born, they were thrown out on the snow to perish. He said that through the knowledge of God's love in Christ the people had been transformed, murderers had become kind and affectionate, thieves had become honorable, and the habits of the people were no longer disgusting. A

had his head shaved in front, and even submitted to be decorated with a "pig-tail." After six years of self-sacrificing missionary work, his health gave out and he had to return to England, but his longing desire that the Chinese might learn to know his Divine Master was as strong as ever. His biographer says that in his most hopeful moments he never dreamed of the harvest which should spring from his sowing during fifty years. "What dream or desire could reach to it?" China open from end to end, an Inland Mission, working in its most distant provinces; a thousand stations and outstations manned by hundreds of missionaries—What! more than nine hundred, when they were praying for five? Yes, and the converts! How could they (Rev. Hudson Taylor and his wife) picture the thirty members of the Church so dear to them multiplied to more than thirty thousand, and the little company of native workers increased to more than two thousand?

other day. Do you belong to that great host?

"Speak Thou for us, O LORD,
In all we say of Thee;
According to Thy Word
Let all our teachings be."

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.]

Madame Curie.

When writing about Helen Keller, I mentioned that, to me, for long enough, three women in the world had seemed absolutely wonderful, Helen Keller, her teacher, Mrs. Sullivan Macy, and Madame Curie, of Paris. So, having told something of the first two, it seems natural to turn to Madame Curie.

She was born in 1866, the second of two daughters, in the home of M. Sklodovska, a Professor of Chemistry in the University of Warsaw.

Perhaps Warsaw did not pay high salaries to its professors, or perhaps, as is quite likely, Professor Sklodovska spent much of his income in prosecuting original investigations in chemistry. At all events, money was none too plentiful in the little Polish household, and so, at an age when other little girls would have been playing with their dolls, the little Marie was required to work with her father in his laboratory "to save the salary of an assistant."

There may have been those who thought it "hard" that the child should have been thus obliged to busy herself with tubes and retorts and chemicals and long names, but the path to great and original work is seldom easy. Had it not been for those laborious, yet, no doubt, interesting days, the world might never have heard of Madame Marie Sklodovska Curie.

When Marie was fourteen years of age, her father died, leaving his daughters practically penniless, and forced to make their own way in the world. The elder eventually studied medicine and became a well-known doctor in Austria, but the mysteries of the laboratory, with its promise of wonderful revelations and transformations, beckoned to Marie, and even then she determined to follow in the footsteps of her father. The only trouble was lack of funds, and to secure these she engaged as governess with a Russian family, hating every minute of the work.

Slowly the little hoard increased, but before it was nearly large enough to offer security, an unlooked-for occurrence brought a new chapter into the girl's life. She had had, it appears, some connection with a somewhat revolutionary club, and the possibility of her being called as witness against students who were members of it seemed imminent. To avoid the ordeal she fled to Paris, and at the next turn of the wheel we find her living in a garret in the Latin Quarter—that rendezvous of struggling ambition and slender purses—in a garret so cold, too, that the milk left in the hallway before the door, froze in its bottle. The room contained a chair and cot, but no table, and the dejected girl who occupied it, looked cold and colorless as her surroundings. "At no time during her residence in this bare and frigid garret," we are told, "could she afford herself such necessities as an umbrella or an extra pair of shoes. Her diet was bread and milk for so long that, as she remarked with reference to this experience later, she had to acquire a taste for wine and meat."

The great University of Paris, with all its opportunities, was within reach, but the young student could not afford to go there. Indeed, for long enough the weary days were spent in a fruitless search for work by which she might earn her living. From door after door she was turned away, then at last she was given the pitiful privilege of preparing the furnace and bottles in a large laboratory.

A laboratory "drudge,"—and yet here

had come her opportunity. Before a week her wonderful ability had attracted the attention of Professor Lippman, and her progress at the municipal working-class technical school confirmed the idea that she was no ordinary student. Finally, Professor Lippman introduced to her M. Pierre Curie, a young professor of chemistry who eventually engaged her as his assistant. Henceforth there was congenial work for the brilliant young Polish girl, and she was no longer obliged to live, as she had been, on an expenditure of less than ten cents per day.



Madame Curie.

The almost inevitable happened. Proximity and similarity in tastes and aims did their work, but it was upon M. Curie that the light of the new affection first dawned. One day he asked the slight, shy girl, with the fair hair and scientist's soul to be his wife, and it was perhaps characteristic of her that the first thing she did was to flee,

was a tiny cottage at Sceaux, nine miles from Paris, but they found that so much time was lost going in and out on cars that they soon removed to the Rue de la Glaciere, near the School of Physics and its laboratories. Madame Curie, by the way, was the first woman ever permitted to use the latter.

Here the husband and wife studied and experimented, side by side, sometimes together, sometimes independently, then, one day in 1898, Madame Curie, following up independently a period of joint study with her husband on the radioactive properties of uranium, discovered by Henri Becquerel in 1896, showed her husband a substance she had succeeded in segregating from pitchblende, an oxide of uranium. So wonderful was this that M. Curie immediately dropped all his other experiments to help her, and, after some months' work, between them, they managed to extract a single grain of another more mysterious substance, which glowed in the dark, and gave off heat without growing cooler or smaller,—radium.

Quietly the discovery was announced, and immediately the scientific world was all agog. Other brilliant minds set themselves to work upon the wonder. It was found that the substance emitted mysterious rays that acted destructively upon tissue, and some of the experimenters gave up in terror of their lives. Others, however, persevered, and before long radium was found to have a destructive effect upon cancer tissue as well as any other. It was hailed as a cure, a hypothesis which seems to be steadily gaining firm ground, and honors poured in upon the Curies from every country but their own.

In May, 1903, the Royal Institute of Great Britain, through the celebrated scientist, Lord Kelvin, invited them to lecture, and hence it was that in England they received their first public applause.



Madame Curie, with a group of distinguished scientists. The photo was taken at the Birmingham meeting of the British Association for the Advancement of Science, at which time a doctorate was conferred upon Madame Curie by the University of Birmingham. Those standing, from left to right, are: Prof. R. W. Wood, of Johns Hopkins University; Prof. Henrik Lorentz, of the University of Leiden, Holland; Prof. Svante Arrhenius, of the Nobel Institute, Sweden. Sir Oliver Lodge sits at Madame Curie's right (the man with the beard), and Prof. Gilbert Barling, of the University of Birmingham, at her left.

straight to Poland at that. "At the thought of permanently leaving her country," it is explained, "all her love for it had flamed up anew," and so she wrote to Professor Curie that she had long before decided to devote her life to science. He, however, was not to be so put off. He wrote in return of his own loneliness, and spoke with such vision of the life they might live together and the work they might accomplish, that her heart was touched. In just two weeks they were married.

The first home of the two scientists

in the same year, the Royal Institute awarded them the Davy medal for research, and Sweden followed by dividing between them and Becquerel the Nobel prize for chemistry.

France then offered to confer upon M. Curie the Cross of the Legion of Honor, but it was declined. In the words of a biographer, "Paris has never forgotten how he refused the honor because a similar decoration was not offered to his wife." About the same time, however, the slight to the lady was, in part, retrieved; the Osiris prize of \$12,000 was

given to her, and henceforth poverty was left behind.

M. Curie, it may be mentioned, was one of the lecturers at the Sorbonne, and now invitations to lecture elsewhere, even before royalty, deluged not only the professor, but also his illustrious wife. With characteristic modesty, however, the two steadily refused the latter invitations. Upon one occasion only did they yield, and that almost ended in disaster. That was when the Shah of Persia visited Paris. He was permitted to come into the hall of the mystery and hear about radium, but when the glass jar containing the bit of wonderful glowing substance was brought into the darkened room, he became frightened, and in his excitement upset the table, spilling out the little capsule containing, not only radium worth \$30,000, but the sole result of a period of infinite labor. Unprotected radium, too, was, because of its elin rays, none too safe a wanderer to be about, so no wonder the occurrence caused consternation. Overwhelmed by his blunder, the Shah pulled off his diamond rings and offered them in payment of the loss, but before long the capsule was found and serenity was restored, the delighted Shah insisting on pinning his orders to the gown of the embarrassed Madame Curie.

On the 19th of April, 1906, M. Curie was knocked down by a dray in Paris and killed instantly, and henceforth Madame Curie had to take up the burden alone—the burden felt by everyone of originality that he must give that which he possesses, or can evolve, though by bloody sweat, to the world.

She was given her husband's chair at the Sorbonne, and, after some hesitation because of her shyness, accepted it. She chose for her lecture-hall the smallest room in the building, but before long, perhaps not altogether to her pleasure, she found Paris flocking to her lectures, butterflies of fashion, as well as men of science, and upon occasion, even royalty itself.

"In a voice quite low and free from the theatrical in tone and effect," says a biographer, "Madame Curie elucidates to her Sorbonne classes the mysteries of that new knowledge which she has mastered, but which has not mastered her. Her manner is as cold as her aspect. She never waves her arms, long and slender and graceful as they are. She never rises to her feet and paces excitedly about her desk as did that genius of physics, the late Professor Berthier. She announces the most wonderful and least expected of developments with the matter-of-factness of a business man reading off a statement of assets and liabilities."

Her accents betray her Polish origin, but she expresses every idea in perfectly idiomatic French. In lucidity of exposition she is unsurpassed."

Henceforth the life of Madame Curie was divided into two parts, one part spent in the lecture-halls and laboratories of the Sorbonne, the other part in the privacy of her own home, where, under the care of a cousin from Poland, her two little girls, Irene and Eva, have been growing up. Private indeed is that home. It is surrounded by a high wall, and only a few chosen friends are permitted to pass beyond the outer gate. Those who are so privileged, find that when out of the laboratory Madame Curie is a thoroughly domestic woman. She teaches her daughters, one of whom has a decided inclination towards science. She has made their clothes and knitted their mufflers. She is an accomplished marketer, and even yet, it is said, washes and irons with her own hands the more delicate pieces of lingerie worn by the members of her little family.—But we must return.

Since her husband's death, Madame Curie has made valuable discoveries, chief of which, perhaps, is her isolation of polonium, called so after her beloved Poland. Something of the properties of polonium was known before radium itself, of which it is a transformation, but, as Professor Rutherford (formerly of McGill) says, "It was, however, the first of the active substances separated from pitchblende residues by Madame Curie. Various methods of concentration were devised by her, with the result that prepara-

Dr. Maria Montessori

tions of polonium mixed with bismuth were early obtained, many thousand times more active than uranium. . . . Polonium is much more difficult to obtain than radium, because it breaks up five thousand times faster, nevertheless, Madame Curie succeeded in obtaining a weighable quantity of it in a pure state. She and Professor Debierne have also, working together, succeeded in producing helium from a preparation of polonium. It may be interesting here to mention that five tons of pitchblende were treated with hot hydrochloric acid in isolating the one-tenth of a milligramme of polonium first obtained by Madame Curie.

In 1911, Madame Curie was refused admission to the French Academy of Sciences by a vote of 30 to 29, because she was a woman; but other countries, Russia, Sweden, England, and America, hastened to elect her to membership in their academies and chemical societies.

In 1913, a convention of famous scientists from all parts of the world appointed her to prepare for the use of laboratories everywhere, the international standard of radio-activity. In 1913, she was awarded the Nobel Prize for achievement in chemistry, and so has been, so far, the only person in the world to receive two Nobel Prizes. Last year, also, the University of Birmingham conferred a doctorate on her.

So this slight, shy, pale, quiet woman, goes on thinking and doing, and the world has not heard the last of her yet. She jots down in her note-books, from time to time, daring theories, and, if she is spared, hopes some day to prove her premises.

Indeed, the more one learns of her, the more one learns to recognize in Madame Marie Sklodovska Curie, one of the most remarkable women the world has ever known.

Economy in Dress.

Miss Rowena is not pretty, but she is "cute," a slang word, but a very expressive one. She is, moreover, a girl who looks invariably well-dressed,—well-groomed, immaculate, trim, without being too trim, and above all things, always dressed for the occasion. She never goes to church in an outfit that makes her look as if she were arrayed for a party, and she never goes to a party in a shirtwaist suit. When she takes an outing she looks like a regular outdoor girl, and when she makes a call she looks just the bright little lady she can be on such social ventures.

To "cap it all," Miss Rowena is said to spend less on her clothes than any other girl on the street. Indeed, she admits the fact, and admits it triumphantly, so she was not at all offended when we asked her bluntly how she manages.

Indeed, she laughed in an amused way, as she plopped down into a pile of cushions and made herself comfortable for her "lecture," as she styled it.

"How do I manage?" she queried. "Well, I don't know whether I always look just right, as you say, but I do know that I have to 'navigate,' and if my experience is worth passing on, why, here it is.

"In the first place, as you may notice, I stick to two or three colors. In spring and summer I wear chiefly blues and white; they suit me, and look cool in hot weather. When fall comes I rather incline to tans and browns. They seem to go with the autumn coloring everywhere, and are good warm colors to wear right through the winter. You see, there's an advantage about keeping to one or two colors in a season; one hat, one pair of kid gloves, and so on, may be made to go with all the clothes one has. Maud Adams, I have heard, during those first years when she was struggling for recognition—and dollars—kept to just black and white. She found them the most economical colors of all. Of course, I do think one should fix upon whatever is most becoming. Gray suits fair-skinned girls with pink cheeks, and is a good, quiet color. The one-color girl, you know, must always rely upon rather quiet shades for the background, for the 'large' effects; she can have her touches of red, and rose, and royal blue, and yellow and burnt orange, in small quantities in hat or bow.

"It's a mistake, too, to choose odd or unusual colors for whole dresses or suits,

no matter how pretty or quiet the color may be,—I mean, of course, unless one can have plenty of dresses. Now, there's Sylvia Lennox. Three years ago she got a lovely amethyst dress; I do think amethyst is a lovely color. But, dear me, she's worn it every spring and fall since, and now it's fairly shrieking its age. It's the same with old rose, garnet, and some of the pretty greens.

"Yes, I do believe in getting good things, if one has to be careful about spending. It pays. A good piece of cloth looks well as long as it lasts; a poor one looks like cheap vaudeville in next to no time. I wear my suits a long time, freshening them up towards the end of their days by fresh buttons, collar and cuffs, maybe. I'd rather have good cotton than cheap silk any day. A good cotton dress looks well even after two summers' wear; a cheap silk looks tawdry by the end of the first season, cut, maybe, and spotted. Cotton dresses may have lots of style to them, too, nowadays.

"No. I spend very little in trimming. I'd rather put the money into material. Thank goodness, trimming doesn't count for much these days; it's 'lines' that count, and the best-dressed women see 'best style' in plain things not all broken and spotted by meaningless dabs here and there. Of course, I like a bit of good lace near the throat and at the edges of the sleeves, but then good lace is an investment. You never grow tired of it. I don't take much stock in the constant changes of extreme styles in neckwear that one sees, in the shops first, then on every other girl (or more) on the street. For instance, last spring everybody was wearing a Robespierre collar; by fall there wasn't one to be seen, and the whole flock, 'like sheep,' had run to net frills around the necks of their coats. Of course, the manufacturers are at the back of such fads; one can spend a lot of money on them, and that's what they want. The girl who keeps to a bit of good lace, or to pretty collars and stocks, never looks out of style at all. In fact, I think she looks rather distinguished because not like everybody else.—And it's so much cheaper. Chiffon and net furbelows are usually very perishable. Anyway, they 'go out.'

"There's a lot in never being extreme. Extreme things always go out soon. Who wears a Directoire gown now? Who will be wearing a split skirt two years from now? Plain suits, and shirtwaists, and long coats, and one-piece dresses, never go really out, so I cling to them for dear life. Of course, I try to give them some little touch that will be individual, and give 'style' to them. That's a knack. Oh, yes, I suppose I have it; at least, folk say I have.

"Good, graceful lines, it may be repeated, are the main thing, whether for suits, dresses, or hats. Nothing else counts for nearly so much. If you get something that really seems to be an expression of you, that is really becoming to you, you can wear it for a long time without being tired of it.

"You can economize greatly on hats. Get a good, graceful shape to begin with, then you can have it stained, shoe-blackened, or blocked over season after season. Don't buy an ostrich feather; at all unless you can get a good one; a good one is, of course, an investment. And be very chary about wings; usually they blow to pieces before half their race is run, and anyhow they're rather barbarous, when you really think about it. Loops of silk and velvet are reliable and look well, and I am very fond of really good flowers. When they fade, I tint them up with tube paint and turpentine.

"Oh, yes, there are lots of little ways in which one can save. Hundreds of city girls are making all their own clothes nowadays—but that's a big way of saving, isn't it? Why, I know three girls at least who make all their suits and separate coats. Of course, they have adjustable dressmaking forms, and that's a great help. I'm going to have one some day, if it does cost \$15.

"But the little ways? Well, to begin with, I never wear extra-fine filmy underwear. It's dainty, but it's not for the girl who has to count her pennies. Good, firm cotton, is just as clean as batiste, and it wears so much longer. It looks very well, too, when trimmed with Torchon. I always keep odd bits of lace in a box—for patching, you know. . . .



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THE problem of fall and winter sewing now confronts every well-regulated household, and you cannot afford to waste precious moments at alterations until your garment loses all its original style and fit, yet it has been endured year after year, because of the mistaken idea that there was no one to help you, so you could cut those garments that they would not require those tedious fittings. A Cutting Course with us will remedy it all. We teach everything, from plainest waist to most elaborate dress.

Write for free booklet, which gives further information, also terms for our lessons.

ELLISON DRESSCUTTING CO.
Dept. L. Berlin, Ontario

Raw FURS Raw

Immediate Cash Payment and an honest sort is what we guarantee. That is why the old trappers and fur dealers ship their furs to us. Our motto is "A square deal to all." Send at once for our Price List.

ROSENBERG BROS.
Dept. H., 97 Jefferson Ave., Detroit, Mich.

WHY SHOULD THE SHERLOCK-MANNING

20th CENTURY be called Canada's Biggest Piano Value?

Write to-day for catalogue and particulars THE SHERLOCK-MANNING PIANO CO. London, (No street address necessary) Ontario

Essex Grown Seed Corn

For prices, write to JOS. J. TOTTEN (R.R. No. 2), Wooddale, Ont.

Practically all one's petticoats may be made of old skirts. With a little ingenuity, they may be made to look very well, too. I never buy readymade night-dresses. As a rule, they do not wear nearly as long as those you make yourself.

"Here's an idea for old shirtwaists. When they wear out around the neck—from the rubbing of collars, you know—cut off the neckband and make the sleeves elbow length, scallop the edges, and work them with blue cotton. Really, they look very well. Old, white, fancy waists, I invariably make into corset covers.

"If you want to save on gloves, don't wear fine kid ones all winter long. Cling to English walking gloves for all but very state occasions. They wear like iron, and are warmer, too, than fine ones.

"I never wear a veil. Veils are really extravagant, like all other filmy things, and they are hard on the eyes. After all, one can keep one's hair in very well with invisible hairpins. Perhaps, when I am old and have wrinkles and things to cover up, I may take to white-net ones, but one can't wear a veil in the house, so what's the use of putting one on any other time?

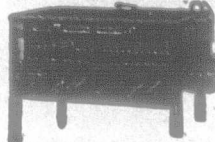
"Silk and fine lisle stockings, too, are a delusion, and a snare for the woman who has to be careful. Of course, I keep a pair or two for fine occasions, but, whisper it low, with my high shoes and Oxfords I wear just—Woolworth's fifteen-centers! Three pairs put me through last summer, and there isn't a hole in one of them yet. I walked a lot, too. And, you know, cotton stock-

I'll Start You and Keep You Going Right in the POULTRY BUSINESS

My World-famous high-quality Incubators and Brooders, and my Free Poultry Lessons make success easy and sure for you!

SUCCESSFUL Incubators and Brooders

are made right, and with the free advice and lessons I give my customers, no one can possibly fail to make biggest hatches of strongest chicks. Write me. A postal brings all facts, book, prices and proposition. *Proper Care and Feeding of Chicks, Ducks and Turkeys*—sent for 10c. Successful Grain Speculators furnish green food, make hens lay in winter. Ask about my high grade poultry—all leading varieties. J. S. Gilchrist, Pres. Des Moines Incubator Co. 633 Second St., Des Moines, Ia.



SEED CORN

that will GROW.

I have 300 bus. Wis. No. 7 White Corn and 100 bus. of White Cop Yellow Dent that was picked for seed. Picked from standing stalk after being fully matured and placed on drying racks. Never piled up, and thoroughly dried before cold weather. This corn is an early variety and especially good for silo and fodder. Will ship either in crate or shelled. If shelled, will be tipped and graded. Will ship on approval. Address

THE POTTER FARM,
Roy Potter, Mgr. Essex, Ont.

DO YOU NEED FURNITURE?

Write for our large photo-illustrated Catalogue No. 7—it's free to you. The Adams Furniture Co. Limited. TORONTO, ONT.

ings are ever so much easier on the feet than lisle.

"Once one has the clothes, the next thing is to take care of them. That counts for just a whole lot, for you can't look well when you go out if your clothes have been jammed in a wrinkly heap for a week. I have plenty of padded coat-hangers, also skirt-hangers, and I keep all my things on them. Before putting my coats and dresses away, I always shake and brush them out of doors, and if there happens to be a spot I take it off with benzine or klenox. Yes, I press my skirts and coats well whenever they seem to need it, and I am very particular about keeping my gloves nice. I clean my white-kid ones with a paste of benzine and cornstarch, and my colored ones with white soap and milk rubbed on a little at a time. My hats always go into their boxes when off my head, and the shoes I am not wearing are stuffed with paper. All these little things count for far more than one might guess.—Now, I don't believe I can think of any more for this time."

So we went away feeling that Rowena had done very well. JUNIA.

GLADIOLI.

Dear Junia,—I wonder if you can answer the following question for me: I see gladiolus seed advertised in some of the seed catalogues. Can you give any information as to culture; time before the seedlings would bloom, etc. Also, how should seed of perennial phlox be treated? None of what I planted grew. M. D.

You are certainly thinking of your garden in good time, M. D. That is the right way. You can't begin planning your garden too soon, and then there is a pleasure in thinking it out all through the winter, isn't there?

I am happy to be able to quote you on this gladiolus question from a very eminent authority, Professor Bailey, of Cornell University. "When seeds are sown," he says, "the seedlings should all produce corms of flowering size in three years. Seed should be planted very early in the open ground, on rich, sandy soil, and not allowed to suffer in the least for lack of moisture. At the end of the first season's growth, the corms of seedlings will be the size of peas, and can be stored under the same conditions as large corms. The second season, plant the corms as if they were garden peas. Some will bloom the second year, and all should bloom the next."

You will find it more satisfactory to buy roots of perennial phlox.

RE FURNISHING.

Dear Junia,—Will you kindly advise me, through your valuable paper, as to the most up-to-date furniture for a parlor? Would wicker chairs be considered proper, or should they be the upholstered kind? Also, what kind of wall-paper is most used for parlors? B. C.

"Will you come into my parlor, said the spider to the fly," but one wonders if even a spider nowadays would talk about his parlor. They are quite out of fashion, you know, but there are living-rooms galore, and a few drawing-rooms,—very formal indeed are the latter. In most of the conveniently small houses that are the fashion nowadays, a compromise has been reached by having a large living-room furnished most comfortably, and a tiny reception-room into which callers who come at inopportune times may be switched.

The living-room, as a rule, has wall-paper of a pleasant, yet serviceable, shade, as a background, and other furnishings as far as possible, to match. Wicker chairs are perfectly in place in a living-room, also big leather or cretonne-upholstered chairs. The main thing to remember is that all must be comfortable, arm-chairs and rockers, with two or three light, straight-backed chairs for drawing up to the table. There may also be a big couch, with plenty of cushions, while a piano and fireplace will add greatly to the delight of a room. The center of the stained floor should be occupied by a large rug, and the curtains should, of course, be sash-length, and made of scrim (printed or plain), voile, raw silk, or Madras, with, if you choose, second curtains of fish-net, etc.

The reception-room, on the other hand, being used comparatively seldom, may be as dainty in coloring as you choose.

Progressive Jones Says:

"Get a Good Crop in Spite of Handicaps"



Take a pointer from Mr. R. A. Jackson, of Cottam, Essex County, who faced a small crop due to late planting and a bad dry spell. From an acre of fertilized land he reaped over one-third more bushels of corn than he did from an acre without fertilization. He has a high opinion of

Harab FERTILIZERS

Good fertilizing helps to win prizes, too. In the field contest for the best ten acres of corn in Kent County, the first, second and third prizes were won by Messrs. W. G. Stark, R. J. Wilson and Leslie English & Son. ALL of these gentlemen used Harab Fertilizers.

There is a sure way to bring back the old-time profits you got when your soil was fresh. Harab Fertilizers will build it up, nourish and enrich the soil while stimulating the crop.

There is a Harab Fertilizer especially good for your soil and the crop you wish to raise—it will be found among the 25 different kinds manufactured by the Harris Abattoir Company. Let their experts select it for you.

But first of all write for a copy of The Harris Abattoir Co.'s Fertilizer Booklet. Visit the Harab Agency in the nearest town or village and get fully posted about those tried and proven fertilizers.

Yours for bumper crops,
Progressive Jones

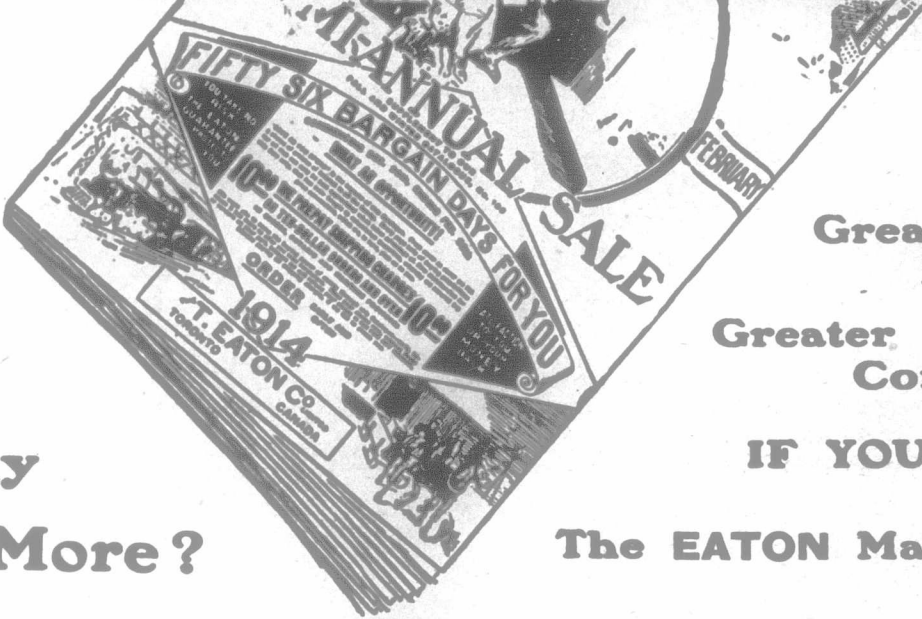
The Harris Abattoir Co., Limited, Toronto
Fertilizer Department



Dr. Maria Montessori

EATON'S SEMI-ANNUAL CATALOGUE SALE

OFFERS TO YOU WONDERFUL VALUES



Why Pay More?

Greater Economy
Greater Convenience
IF YOU BUY

The EATON Mail Order Way

Are You Sharing in the Bargains?

Our Semi-annual Sale is now off to a good start—but what about you? Every Catalogue sent out is a messenger of saving economies, and your copy contains news of great interest if you will but use it. Each and every page has articles for present or future use at saving prices that you cannot afford to let pass. If you have not given all this your serious attention, we ask that you do so now, believing that it is in your best interests. There is no time like the present, so we say make good use of the opportunity, and trust the EATON guarantee, plus the quick, satisfactory service, all of which you will appreciate.

Don't Delay Your Order-- Sale ends 28th of February

Again, we remind you that time goes quickly, and in about four more weeks your chance to buy at present prices will have gone. This Sale ends 28th February, and so that you might get the greatest good it would be advisable to order as often as you can conveniently. Remember, all goods are specially bought and specially priced, and no article is offered but what represents EATON quality—the kind we have always given you—the kind that has made the EATON Mail Order Way popular—the kind of service that thousands to-day enjoy, because it is helpful in every sense of the word. Now is a good time to prove all this to your utmost satisfaction.

Buy Now for future use-You save Money

Many will see in this Sale the opportunity to buy goods to the best advantage for future use. Just look over your Catalogue once again—even as you read this, and ask yourself whether you have made the best use of your Catalogue. Consider the variety you have to choose from—note well the saving prices quoted, and lastly, don't hesitate. Order when the interest is fresh in your mind. Send your order at our risk—without doubt or question because of this assurance—

"GOODS RIGHT OR YOUR MONEY BACK"

That's your guarantee. Or, to be more exact, the EATON guarantee, which says, "Goods satisfactory to you or money refunded, including shipping charges—no exceptions." We leave the ultimate decision in your hands. Our Catalogue message is one of economy in the buying of daily necessities, and we believe it can do all this. WILL YOU LET US PROVE IT?

We prepay shipping charges on \$10.00 orders or over

THE T. EATON CO LIMITED
TORONTO CANADA

20 Crops of Potatoes Av. 322 Bush. per Acre

\$500 AWARDED

BOWKER PRIZE WINNERS

Northern Zone (Maine, N. H., Vt.)		Total Bushels	Complete Score Points including weight, size and cooking quality
\$100 1st Prize	A. B. Cobb, Lee, Me.	502.6	690
50 2nd	O. B. Keene, Liberty, Me.	418.6	660
30 3rd	J. L. Demeritt, Sangerville, Me.	405.5	615
25 4th	Frank J. Hersey, Dexter, Me.	465.8	607
20 5th	D. L. Brett, Oxford, Me.	400.	525
15 6th	W. S. Hodges, Phillips, Me.	311.1	523
10 7th	R. J. Martin, Rochester, Vt.	331.8	520
Gratuity.	Geo. E. Burditt, Rochester, Vt.	457.8	634
Southern Zone (Mass., R. I., Conn.)			
\$100 1st Prize	A. W. Butler, Brockton, Mass.	363.1	589
50 2nd	Jos. Howland, Taunton, Mass.	344.9	574
30 3rd	Henry A. Wyman, Rock, Mass.	342.5	558
25 4th	Edwin L. Lewis, Taunton, Mass.	260.2	515
20 5th	W. C. Endicott, Danvers, Mass.	217.7	503
15 6th	Luther Holton, N. Franklin, Ct.	183.8	450
10 7th	Dudley P. Rogers, Danvers, Mass.	185.7	430

Send us your name for complete and instructive statement concerning the results of the contest and how these great yields of potatoes were obtained. No other fertilizer than the Stockbridge Potato Manure was used.

BOWKER FERTILIZER COMPANY
43 Chatham Street, Boston, Mass.

Rennie's New Seed Annual for 1914.

WM. RENNIE CO., Limited
Branches at Montreal, Winnipeg and Vancouver

THIS complete book, bound in lithographed covers, is YOURS for the asking. It is an elegant book—the best seed catalogue we have yet issued—and offers some most desirable Novelties in Vegetables and Flowers which can be obtained only direct from us. Many a winter's evening can be spent profitably in planning your garden, by a careful study of this book. Shall we send you a copy?

Cor. Adelaide and Jarvis
Streets, TORONTO

LAKEVIEW HOLSTEINS

Senior herd bull.—Count Hengerveld Fayne De Kol, a son of Pietertje Hengerveld's Count De Kol and Grace Fayne 2nd. Junior herd bull.—Dutchland Colantha Sir Mona, a son of Colantha Johanna Lad and Mona Pauline De Kol. Third bull.—King Canary Segis, whose sire is a son of King Segis Pontiac, and whose dam is a 27 lb. three year old daughter of a 30 lb. cow. Write for further information to,—

E. F. OSLER, BRONTE, ONTARIO

THE GREAT CANADIAN ANNUAL Shorthorn Sale

Will be held at The Union Stock Yards, TORONTO, on
Wednesday, February 4th, 1914

This offering, consigned by Robert Miller, Stouffville, Ont.; J. A. Watt, Elora; John Miller, Jr., Ashburn; Capt. T. E. Robson, London, and Kyle Bros., Ayr, comprises 66 head of prizewinners and choice individual, including 24 bulls and 42 females—Lavenders, Missies, Nonpareils, Butterflys, Augustas, Village Blossoms, Minas, Glosters, Miss Ramedens, Kiblean Beautys and others. Ask for catalogue at once.

ROBERT MILLER, Stouffville, Ont.
Manager of Sale.
Col. Carey M. Jones, Col. Fred. Reppert, Capt. T. E. Robson, Auctioneers.

C. & W. LIQUID ROUP REMEDY

A Positive Cure for Roup, Canker and Chicken Pox in Poultry and Pigeons.
F. C. Dulmage, former Secretary of London Poultry and Pet Stock Association, on Jan. 16th, 1914, writes: "I have used with splendid success C. & W. Liquid Roup Remedy, manufactured by The Specialty Agency, on very aggravated cases of canker and chicken pox. It is easily applied and does its work quickly."

We will cure your birds too.
Send us your dealer's name with 25c. for trial bottle. Standard Bottle, \$1.00.
Free advice given regarding diseases by our poultry expert. Dealers wanted everywhere to represent us. Write to
THE SPECIALTY AGENCY
134 Carling Street - LONDON, ONT.

Please mention "The Farmer's Advocate."

FOR SALE

Creamery Equipment and Machinery
Including boiler, wagons, cans, etc.; also ice cream freezer and shipping tubs. This is an excellent opportunity to secure thoroughly up-to-date machinery. Full particulars will be mailed on application.

Box 75, Farmer's Advocate, London, Ontario

FARM HELP

Parties of young men now being organized for placing on Ontario farms. First party will sail in January. For full particulars, apply:

BOYS' FARMER LEAGUE
Drawer 126 WINONA, ONT.

CREAM WANTED

34c. per lb. fat for sweet or sour cream is more than present market conditions warrant, still, this is our price commencing Feb. 1st. Cans furnished and Express paid within 100 miles of our city. We meet all competitors. Write us

TORONTO CREAMERY CO., LIMITED,
TORONTO, ONTARIO

O. A. C. No. 72 OATS

Government tested, for sale by the grower.
R. F. KLINCK, Victoria Square, ONTARIO

Light paper lined curtains, chairs daintily upholstered in flowered chintz, satin-damask, or anything you like best, dainty pictures, a few choice bits of bric-a-brac.

Now, you see, your furnishings must be in accordance with the use to which you put the room. It may be noted that many people who cannot conveniently have both living- and reception-rooms, do with the former, dispensing altogether with reception-room and drawing-room or parlor.

The Scrap Bag.

CARE OF EBONY HAIRBRUSHES.

Hairbrushes may be cleaned very nicely by dipping the bristles up and down in ammonia water, rinsing afterwards thoroughly in clear water, but this is likely to dull the ebony of the back. To prevent the damage, rub the ebony portions with vaseline before washing the bristles. Rubbing the ebony well with olive oil after each washing is also efficacious.

SAVING EGG-YOLKS.

When the whites only of the eggs are needed for immediate use, slide the yolks carefully into a bowl, cover with cold water, and keep in a cold place. They will keep for several days until a use is found for them.

HOMEMADE MOPS.

Pad the end of an old broom or hoe handle, and sew to the padding bundles of old flannelette or cotton cut into strips. The mops will be found very useful for brushing down walls, or when slightly moistened with coal oil, for mopping the dust off stained or painted floors. Smaller ones may be made by using a smaller stick, for dish-mops. In either case, it is necessary to tack the padding very firmly to the handle.

CLEANING OLD, STEEL PENS.

If steel pens scratch, hold them over a lighted match for a few seconds. This will often remove the trouble.

FRESHENING BOWS ON HATS.

When bows and loops on a hat become limp and crumpled, dampen them very slightly, then press from within with a heated curling-iron. This idea is especially useful when travelling.

TURNED-UP CORNERS OF RUGS.

Sew a pocket on the underside of each corner, and slip in each a piece of heavy tin or zinc, which you can have cut to fit at a hardware store. This will prevent the corners from curling.

PLAN FOR COLLAR SUPPORTS.

Take pieces of tape a little longer than the width of your collar, and stitch down to form a little pocket at each end, then fasten to the inside of your collar at each side. The celluloid supports may now be easily slipped in and held in place by the pockets, and may be as easily removed whenever the waist has to be laundered.

DISCARD SALT SHAKERS.

Use small, open salt-dishes, with salt-spoons, and so do away with the worry of salt that becomes damp and refuses to shake out.

BOILING TOUGH FOWL OR MEAT.

Add a tablespoonful of vinegar to the water in which fowl or meat of any kind is being boiled. This will make it tender. Two tablespoonfuls of vinegar added to the water in which fish is being boiled, seems to have a somewhat opposite, though still beneficial effect. It makes the fish whiter and firmer. When a few drops are added when poaching eggs, the whites are prevented, somewhat, from spreading.

CLEANING UPHOLSTERED FURNITURE.

When it is too cold outdoors to take upholstered furniture out so that it may be beaten, cover each piece with a damp cloth, then beat, rinsing the cloth as often as necessary. The dust will adhere to the cloth and not rise into the room.

A FURNITURE REVIVER.

The following is recommended as a very excellent reviver and preserver of furniture: Mix one part lemon oil and two parts boiled linseed oil, and apply rather sparingly to the wood with a linen rag or bit of cheesecloth. Rub well. . . . Another also highly recommended is a mixture of equal parts turpentine, pure cider vinegar, and boiled linseed oil. Shake well together before applying, and wash the wood first with a soft cloth wrung out of hot water. Apply as above.

TO CLEAN A WHITE-FELT HAT.

Brush the hat thoroughly. Dry soft, four in a slow oven and mix it with bread crumbs, then rub the hat well with the mixture. When all marks have disappeared, brush the hat well with a clean brush.

FOOT-STRAPS ON KNITTED DRAWERS.

Children who dress themselves, usually have difficulty in holding down the legs of their drawers while pulling on their stockings. A loop of tape tacked to the edge of the drawers' leg so that the foot may be slipped through it, will remove the difficulty.

ZINC FILINGS IN STOVE.

Burning zinc filings once a month in the furnace will, it is said, remove the accumulation of soot in pipes and chimney.

WASHING WHITE SILK.

To wash white silk so that it will not turn yellow, use water that is barely lukewarm, and pure white soap. Rinse thoroughly, then wrap it in a cloth and let lie for half an hour and it is ready to iron. Do not hang the silk out in the air, as that turns it yellow.

LAMP CHIMNEYS.

To make lamp chimneys bright, rub them with salt after washing and drying them.

CLEANING HAIR IN COLD WEATHER.

If washing your hair with water in cold weather gives you cold, try cleaning it by rubbing it thoroughly with cornmeal. Brush the meal out with a clean brush.

TO RENOVATE MATTING.

Matting that has been frequently washed, and has lost its fresh appearance, may be greatly improved by painting it with a mixture of shellac thinned with turpentine to the consistency of varnish. Treat one breadth at a time, following the weave. The mixture will dry quickly, and will help to prevent dust from sifting through the matting.

TO REMOVE GREASE STAINS FROM WALL-PAPER.

Apply a mixture of pipe-clay and water made as thick as cream. Leave over night, and remove next day with a clean brush.

TO IMPROVE TABLES AND DRESSERS.

Often the tops of tables and dressers become badly disfigured, the scratches being so deep that polish will not remove them. Get plain, flat moulding, and nail it securely around the edge so that it projects slightly above. Have a sheet of glass cut to fit exactly inside of this frame. Put Holland linen or pretty, flowered chintz or cretonne, beneath the glass.

TO CLEAN SUEDE GLOVES.

To clean light, Suede gloves, put some oatmeal in a bowl. Then put on the gloves and rub the hands through the meal exactly as if washing them.

Midwinter Recipes.

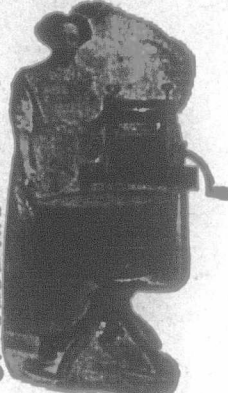
A Milkless, Eggless, Butterless Cake.—Boil together for three minutes 1 cup dark-brown sugar, 1 cup water, 1 1/2 cups seeded raisins, 1/2 cup lard, 1 teaspoon ground cinnamon, 1/2 teaspoon ground cloves, 1/2 grated nutmeg, pinch salt. Let cool, and when cold stir in 1 teaspoon soda dissolved in a little warm water.

Dr. Maria Montessori

THIS WASHER MUST PAY FOR ITSELF.

A MAN tried to sell me a horse once. He said it was a fine horse and had nothing the matter with it. I wanted a fine horse, but I didn't know anything about horses much. And I didn't know the man very well either.

So I told him I wanted to try the horse for a month. He said "All right," but he said "I'll give you back your money if the horse isn't all right." I didn't like that. I was afraid the horse wasn't "all right" and that I might have to whistle for my money if I once parted with it. So I didn't buy the horse, although I wanted it badly. Now, this set me thinking.



You see I make Washing Machines—the "1900 Gravity" Washer.

And I said to myself, lots of people may think about my Washing Machine as I thought about the horse, and about the man who owned it.

But I'd never know, because they wouldn't write and tell me. You see I sell my Washing Machines by mail. I have sold over half a million that way. So, thought I, it is only fair enough to let people try my Washing Machines for a month, before they pay for them, just as I wanted to try the horse.

Now, I know what our "1900 Gravity" Washer will do. I know it will wash the clothes, without wearing or tearing them, in less than half the time they can be washed by hand or by any other machine.

I know it will wash a tub full of very dirty clothes in Six Minutes. I know no other machine ever invented can do that, without wearing the clothes. Our "1900 Gravity" Washer does the work so easy that a child can run it almost as well as a strong woman, and it don't wear the way all other machines do.

It just drives soapy water clear through the fibres of the clothes like a force pump might.

So, said I to myself, I will do with my "1900 Gravity" Washer what I wanted the man to do with the horse. Only I won't wait for people to ask me. I'll offer first, and I'll make good the offer every time.

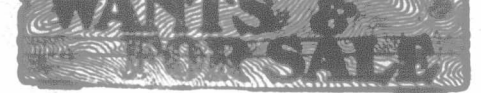
Let me send you a "1900 Gravity" Washer on a month's free trial. I'll pay the freight, out of my own pocket, and if you don't want the machine after you've used it a month, I'll take it back and pay the freight, too. Surely that is fair enough, isn't it?

Doesn't it prove that the "1900 Gravity" Washer must be all that I say it is?

And you can pay me out of what it saves for you. It will save its whole cost in a few months in wear and tear on the clothes alone. And then it will save 50 to 75 cents a week over that in washwoman's wages. If you keep the machine after the month's trial, I'll let you pay for it out of what it saves you. If it saves you 60 cents a week, send me 60 cents a week 'til I paid for it. I'll take that cheerfully, and I'll wait for my money until the machine itself earns the balance.

Drop me a line to-day, and let me send you a book about the "1900 Gravity" Washer, that washes clothes in six minutes.

Address me personally,
I. T. MORRIS, Manager 1900 Washer Co.,
357 Yonge St., Toronto.



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

TERMS—Three cents per word each insertion. Each initial counts for one word and figures for two words. Names and addresses are counted. Cash must always accompany the order. No advertisement inserted for less than 50 cents.

FARM wanted to rent or shares—100 acres preferred. Apply Box 58, Farmer's Advocate, London, Ont.

FOR SALE or rent—800 acre farm in good wheat growing and mixed farming district, 400 acres under cultivation. For full particulars write Mrs. Gable, 55 Chantry Ave., Moose Jaw, Sask.

FOR SALE—80 acre farm near Paris, all cleared, good buildings, silo, good well, orchard, garden, small fruits, fall ploughing, wheat in ground. Geo. Featherstone, Paris, Ont.

MAN Wanted to operate greenhouse for the Dominion Canners Farms at Wellington, Ont. Must have expert knowledge of growing tomato plants in large quantities. Apply stating experience, salary expected etc. M. B. Clark, Wellington, Ont.

SNAP—307-acre farm, Saskatchewan; choice land, best district; good buildings and water; all cultivated. Low price and easy terms. Must be sold. Apply Box 65, Farmer's Advocate, London, Ont.

WANTED—A man and wife for farm, a good dairyman and the woman a good cook and capable of managing a farm household. Apply stating age and experience to Farmer's Advocate, London, Ont.

WANTED—Farmer and wife for small farm with purebred stock. Husband to be thoroughly competent stockman and general farmer, able and willing to work. Wife to take care of house, to be capable and cleanly housekeeper, able and willing both to do the work of farmer's wife. Essential that both be of high character. Apply to Frank Cockshutt, 42 Colborne St., Brantford, Ont.

125 ACRES, Blanshard Township; two-story brick house, bank barn, hog-pen, drive-wheat, three acres bush, plenty water, twelve acres wheat. John Fotheringham, Woodham, Ont.

Farmers—Make your concrete posts with wood strip, and fasten the wire with staples. For description of forms, address: J. J. COOK, Cherry Valley N. Y., U. S. A.

then 2 cups flour sifted with 1/2 teaspoon baking powder. Bake in a loaf. Nuts may be added if liked.

A Good, Eggless Cake.—Boil together for two minutes 1 cup water, 1 cup brown sugar, 1/2 cup lard, 2 cups seedless raisins, 1 teaspoon powdered cinnamon, 1/2 teaspoon ground cloves, dash of grated nutmeg, pinch salt. Set aside to cool. When cool, add 1 teaspoon soda dissolved in 1/2 cup lukewarm water, then 2 1/2 cups flour sifted with 1 teaspoon baking powder. Mix well, and bake in a buttered and floured tin. Bake in a moderate oven.

Oatmeal Bread.—Mix 2 cups rolled oats and 3 1/2 cups boiling water and let stand until lukewarm, then add 1/2 cup molasses, pinch salt, and one yeast-cake blended in a little cold water. Flour to make dough. Let rise over night. In the morning, stir it down and let rise again. Mould into loaves and let rise once more. Bake forty-five minutes in a moderate oven. This will make three small loaves.

Bread and Fruit Pudding.—Remove crust from about half a loaf of stale bread, cut the bread in slices and butter thin, then pile one slice above the other and cut them in very small cubes. Mix one pint of the cubes with a cup of raisins, a cup of sugar, grated rind of an orange or lemon, about half a grated nutmeg, a teaspoon salt, and four beaten eggs. Pour into a buttered baking-dish and let stand about an hour. Bake until firm in the center. Stir after it has been in the oven half an hour. This will make quite a large pudding. Serve with creamy sauce, made as follows: Boil 1 cup sugar and 1/2 cup water six or eight minutes. Pour the syrup in a fine stream on to the white of an egg beaten dry. Set the dish in ice water and beat occasionally until cold, then fold in a cup of cream whipped firm to the bottom of the bowl. Flavor with vanilla.

Eggless Spice Cake.—Cream together 1 cup sugar and 1/2 cup butter. Add 1 cup sour milk and 2 cups flour sifted with 1 teaspoon soda, dash of nutmeg, 1/2 teaspoon ground cloves, 1 teaspoon cinnamon. Mix in 1 cup floured raisins. Bake in a deep loaf-cake tin. A cup of nutmeats may be added if liked.

Eggless Icing.—Boil together 1 cup granulated sugar and 5 tablespoons milk until the mixture threads from a spoon. Add flavoring to taste, and stir until thick and creamy enough to spread on cake.

Oatmeal with Apples.—To 2 1/2 cups boiling water add 1 teaspoon salt, and sprinkle in slowly 1/2 cup oatmeal. The water will not stop boiling if the meal is sprinkled in gradually enough. Boil five minutes, then put into a double-boiler and cook at least thirty minutes. Serve with apples cooked thus: Wash the apples and core them carefully, then pare. Boil 1 cup sugar and 1 1/2 cups water together for about five minutes, then put in the apples and cook gently until tender. Serve with oatmeal in and around them, and cream poured over.

Stew of Beef.—Cut thin slices of cold roast beef and lay them in a saucepan set in boiling water. Cover with a gravy made of 3 tablespoons melted butter, 1 of catsup, 1 teaspoon vinegar, a little salt and pepper, a spoonful of currant jelly, a teaspoon of made mustard, and some warm water. Cover tightly, and steam for half an hour, keeping the water in the outer vessel boiling hard.

A Delicious Apple Dish.—Wash and core carefully six large apples. Place the apples in a deep granite or earthen baking dish, and fill the cavities with a mixture of chopped walnut meats and stoned dates. Put 1/2 cup water in the dish, sprinkle the apples thickly with sugar, and cover the dish until the sugar is melted, then uncover and let bake, using the syrup to baste the apples with occasionally. Serve in a glass dish with cream whipped until stiff on top.

Onion Soup.—Peel three large Spanish onions or several smaller ones, cut them in slices and let cook in 1/2 cup butter melted in a saucepan. Stir occasionally, but do not let brown. When the onions are yellowed and softened, add 2 quarts broth or stock of any kind, and let simmer very gently for half an hour. Add salt and pepper to taste, and strain. Serve very hot with croutons of toasted bread.

Many people who cannot eat either oatmeal or fried foods at any other time of the year, find quite an appetite for them during cold weather. It should be remembered, however, that food fried in "deep fat" is much more palatable and more digestible than when fried in a little fat in a frying-pan. By frying in deep fat, the outside of the article is seared at once, making it impossible for the juices to escape. These juices, when heated, cook the food, and the outside is merely browned by the fat.

When food is cooked in a little fat in a frying-pan, on the other hand, it becomes soaked with the fat.

To cook successfully in deep fat, a kettle should be used, and the fat should be deep enough to quite cover the food. The fat, also, should be hot enough to brown the food quickly, but not hot enough to crisp it to the core.

A useful table is the following: Drop a bit of dry bread into the fat. If it browns in forty seconds it is right for croquettes and all previously cooked foods; if in sixty seconds, it is right for doughnuts and fritters. Fry just a few articles at once, and be sure to roll croquettes, etc., in egg and bread crumbs before submerging them. Drain the croquettes, etc., on brown paper as soon as removed from the pot.

"Deep fat" is really the most economical method of frying. It can be used over and over if clarified by cooking a few slices of raw potato in it.

Doughnuts.—Cream together 1 cup sugar, 2 teaspoons butter, pinch salt, and 1/2 grated nutmeg. Add 2 eggs well beaten, and beat well, then beat in 1 cup sweet milk. Finally sift 2 teaspoons baking powder with 4 cups flour. Use enough of this flour to make the dough just stiff enough to handle, and use the remainder on the board. Roll the dough out 1/2 inch thick, form into rings and twists, and fry in deep fat. Drain well, then roll in powdered sugar.

Fritters.—Sift together 1 cup flour, 1/2 teaspoon salt, 1/2 teaspoon baking powder. Next add 2 eggs beaten and added to 1 cup milk, and beat with an egg-beater until smooth, not frothy. Add 1 teaspoonful of sugar if you choose. Dip slices of apple, peach, pineapple, etc., into the batter, and fry in deep fat.

French Potatoes.—Pare the potatoes and cut them into slices. Soak in cold water for an hour or two, then dry on a towel. Drop into fat hot enough to brown them by the time they float, when they will be done. Skim them out, drain on brown paper, sprinkle with salt, and serve at once on hot plates.

French Crullers.—Take 3 eggs, 1 teaspoon salt, flour to thicken, 3 tablespoons milk, 6 tablespoons melted butter, 6 tablespoons sugar. Rub butter, salt and sugar together; add the beaten egg and milk, and flour enough to make a soft dough. Roll half an inch thick, cut in rings, and fry in deep fat.

Salmon Croquettes.—For 14 croquettes allow 1 can salmon, 4 tablespoons milk, 1 1/2 cups bread crumbs, 2 eggs, 4 tablespoons melted butter; salt and pepper to taste, and a pinch of mace. Drain the salmon and mash fine, add the beaten egg, then the melted butter, the crumbs, and milk. Beat to a soft paste. Dip by spoonfuls in beaten egg, lay each in cracker-dust, and shape, then fry in deep fat.

WHY SHE WEPT.

When Jenkins finally managed to wake up, he found his wife weeping uncontrollably.

"My darling!" he exclaimed. "What in the world is the matter?"

"Oh, I've had such a dream," she said. Jenkins begged her to tell it to him; and finally she consented to say this much:

"I thought I was walking down the street and came to a shop where it said: 'Husbands for sale.' You could get beautiful ones for \$5,000, and very nice-looking ones for even as little as \$500." "And were there any that looked like me?" asked Jenkins, not altogether ingenuously.

The sobs became suddenly violent. "Dozens of them!" gasped Mrs. Jenkins. "Done up in bunches like asparagus, and marked 25c. a bunch."

A serious effort is being made in China to make Confucianism the state religion. President Yuan, however, seems to be in favor of freedom of worship.

POULTRY AND EGGS

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

A number of choice Single Comb Rhode Island Red cockerels for sale from \$2 to \$5 each, direct from prize winning stock. Fred M. Pugh, Mongolia, Ont.

BRONZE Turkeys, heavy toms and hens. G. E. Nixon, R. 3, Ilderton, Ont.

BREEDER of high class Barred Rocks. Stock for sale. Prices low. Write me. Leslie Kerns, Freeman, Ont.

CARLUKE Poultry Yards highest class exhibition Barred Rocks, winners again at Guelph Show the Premier Show of Canada; also at Toronto. Some choice cockerels. Either cockerel or pullet matings for sale. Write for prices. We have the goods. G. Morton & Sons, R. R. No. 4, Box 130, Hamilton, Ont.

FOR SALE—Choice exhibition S. C. B. Leghorn cockerels. Apply to Thos. Eyles, Cameron, Ont.

FOR SALE—Mammoth Bronze turkeys; prize-winners at the Western Fair, also Guelph. Angus Beattie, Wilton Grove, Ont. R. No. 1.

FOR SALE—A few choice Rose Comb Rhode Island Red cockerels, from my best laying strain, two to five dollars each. Howard Smith, Winona, Ont.

FORTY-FIVE varieties fancy poultry. Hand-some catalogue free. S. A. Hummel, Box 22, Freeport, Illinois.

MAMMOTH Bronze turkeys, fine, heavy, vigorous birds; bred from prize stock. R. G. Rose, Glanworth, Ont.

MAMMOTH Bronze turkeys for sale; also Single-Comb White Leghorn cockerels; choice stock. J. H. Rutherford, Box 62, Caledon East, Ontario.

PUREBRED Bronze Turkeys, Rouen Ducks, Single-combed White Leghorns. Prices reasonable. C. A. Powell, Arva, Ont.

PURE Bred Bronze Turkeys, Brown Ducks, Single-combed White Leghorns. Prices reasonable. C. A. Powell, Arva, Ont.

"SNOWFLAKE" White Leghorn Cockerels. Either show or breeding quality. Low prices. E. W. Burt, Paris, Ontario.

S. C. White Leghorns for sale, a number of choice S. C. cockerels. Geo. D. Fletcher, R. R. No. 2, Erin, Ont.

WANTED—HIDES TO TAN

For robes, coats, etc., horse hides, cattle hides and furs. No leather tanned.

B. F. BELL, Delhi, Ontario

Cream Wanted

Toronto consumes daily the milk and cream from over 14,000 cows, and the butter from over 70,000 cows. We need your cream. Write

TORONTO CREAMERY CO., Limited
9, 11 and 13 Church St., Toronto

Cream Wanted

We pay express charges on cream from any express office within 200 miles of Ottawa. We also supply cans. Sweet or sour cream accepted. Write for particulars to

Valley Creamery of Ottawa, Limited
Ottawa, Ontario

The proprietor of Letters Patent No. 124614 relating to

"Air Current Interruptors"

desires to dispose of the patent or to grant Licence to interested parties at reasonable terms, with a view to the adequate working of the patent in Canada. Inquiries to be addressed to the patentees Aktiebolaget Mjælkningsmaskin Omega, Flen, Sweden.

WHERE THE FARM HAND BALKED.

Sam had worked on the farm for nine years, and until his master took to poultry farming he was quite satisfied with life.

But this poultry business was a bit too much. He had to take the eggs as they were laid and write the date on them with an indelible pencil. And worse than that, he had also to write on the eggs the breed of the hen that laid them.

So one day he marched up to the farmer.

"I'm about fed up," said he, "and I'm going to leave!"

The farmer was astonished.

"Surely, Sam," said he, "you are not going to leave me after all these years?"

"Yes, but I am," retorted Sam. "I've done every kind of rotten job on this here farm, but I'd rather starve than go on being secretary to your old hens."

The Canadian Bank of Commerce

Report of the Proceedings of the Annual Meeting of Shareholders

Tuesday, 13th January, 1914

The Forty-seventh Annual Meeting of the Shareholders of the Canadian Bank of Commerce was held in the banking house at Toronto, on Tuesday, 13th January, 1914, at 12 o'clock.

The President, Sir Edmund Walker, having taken the chair, Mr. A. St. L. Trigge was appointed to act as Secretary, and Messrs. Aemilius Jarvis and Edward Cronyn were appointed scrutineers.

The President called upon the Secretary to read the Annual Report of Directors, as follows:

REPORT

The Directors beg to present to the Shareholders the Forty-seventh Annual Report, covering the year ending 29th November, 1913, together with the usual statement of Assets and Liabilities:

The balance at credit of Profit and Loss Account, brought forward from last year, was.....	\$ 771,578 88
The net profits for the year ending 29th November, after providing for all bad and doubtful debts, amounted to.....	2,992,951 10
	<u>\$3,764,529 98</u>

This has been appropriated as follows:

Dividends Nos. 104, 105, 106 and 107, at ten per cent. per annum.....	\$1,500,000 00
Bonus of one per cent. payable 1st June.....	150,000 00
Bonus of one per cent. payable 1st December.....	150,000 00
Written off Bank Premises.....	500,000 00
Transferred to Pension Fund (annual contribution).....	80,000 00
Transferred to Rest Account.....	1,000,000 00
Balance carried forward.....	384,529 98
	<u>\$3,764,529 98</u>

In accordance with our usual practice, the assets of the Bank have again been carefully revalued and ample provision made for all bad and doubtful debts.

The following branches were opened during the year: In British Columbia: Comox, Courtenay, Pandora and Cook, Victoria, and Parksville. In Alberta: Highland, Monitor, Peace River Crossing and Retlaw. In Saskatchewan: Kincaid, Readlyn, Shaunavon and Wiseton. In Manitoba: Kelvin Street, Winnipeg. In Ontario: Oshawa and Port McNicoll. In Quebec: Upper Town, Quebec, and in New Brunswick: Campbellton, Moncton and West St. John.

Sub-agencies mentioned below have been made independent branches:

Asbestos, Chambly, Clarenceville, Dunham, Iberville, Lacolle, Roxton Falls, Stanbridge East and Uppertown, Sherbrooke, all in the Province of Quebec.

The branches at Stewart, B. C.; Black Lake, Que., and St. Elizabeth, Que., have been closed, and the business of the branch at 367 Main Street South, Winnipeg, has been transferred to the main office in Winnipeg. The business of the sub-agencies at Naramata, B. C.; Beloeil Station, Henryville, Lawrenceville, St. Philippe de La Prairie, St. Sebastien, Sweetsburg and Upton, all in the Province of Quebec, has been transferred to their respective parent branches. Since the close of the year branches have been opened at St. Denis and Duluth, Montreal; Bath N. B., and Bristol, N. B.

Due notice has been received of the intention to nominate Mr. T. Harry Webb, of Messrs. Webb, Read, Hegan, Callingham & Co., Montreal and Winnipeg, and Mr. James Marwick, C. A., of Messrs. Marwick, Mitchell, Peat & Co., Montreal, as auditors of this Bank under the provisions of sub-section 10 of section 56 of the Bank Act.

The branches and agencies of the Bank in Canada, the United States, Great Britain, Newfoundland and Mexico and the departments of the Head Office have undergone the usual thorough inspection during the year.

The Directors wish again to express their appreciation of the efficiency and zeal shown by the officers of the Bank in the performance of their duties.

ALEXANDER LAIRD,
General Manager.

Toronto, 13th January, 1914.

B. E. WALKER, President.
Z. A. LASH, Vice-President.

General Statement, 29th November, 1913

LIABILITIES

Notes of the Bank in circulation.....	\$ 15,642,923 18	
Deposits not bearing interest	\$ 52,798,205 84	
Deposits bearing interest, including interest accrued to date.....	140,015,509 40	
	<hr/>	192,813,715 24
Balances due to other Banks in Canada..	633,237 12	
Balances due to Banks and Banking Correspondents elsewhere than in Canada..	10,071,316 73	
Bills payable	9,515,787 65	
Acceptances under Letters of Credit.....	1,941,544 19	
	<hr/>	\$230,618,524 11
Dividends unpaid.....	2,666 48	
Dividend No. 107 and bonus, payable 1st December.....	525,000 00	
Capital paid up	\$15,000,000 00	
Reserve.....	13,500,000 00	
Balance of Profit and Loss		
Account carried forward.	384,529 98	28,884,529 98
		<hr/>

ASSETS

Current Coin and Bullion..	\$ 9,579,473 66	
Dominion Notes.....	20,836,182 50	30,415,656 16
Balances due by Banks and Banking Correspondents elsewhere than in Canada	6,884,652 83	
Balances due by other Banks in Canada.....	22,122 47	
Notes of other Banks.....	3,106,230 00	
Cheques on other Banks...	6,418,425 14	16,431,430 44
Call and Short Loans in Canada on Bonds, Debentures and Stocks.....	9,610,550 08	
Call and Short Loans elsewhere than in Canada	16,154,360 65	
Dominion and Provincial Government Securities	3,434,605 06	
British, Foreign and Colonial Public Securities and Canadian Municipal Securities.	2,431,989 71	
Railway and other Bonds, Debentures and Stocks	18,091,224 04	
Deposit with the Minister for the purposes of the Circulation Fund.....	738,500 00	
	<hr/>	\$ 97,308,316 14
Other Current Loans and Discounts in Canada (less rebate of interest).....	136,474,874 82	
Other Current Loans and Discounts elsewhere than in Canada (less rebate of interest)	18,102,015 15	
Overdue Debts (estimated loss provided for)	487,554 72	
Real Estate (including the unsold balance of former premises of the Eastern Townships Bank).....	979,915 61	
Mortgages on Real Estate sold by the Bank	433,607 32	
Bank Premises.....	4,281,481 60	
Other Assets	21,411 02	
Liabilities of customers under Letters of Credit, as per contra	1,941,544 19	
	<hr/>	\$260,030,720 57

B. E. WALKER, President.
Z. A. LASH, Vice-President.

ALEXANDER LAIRD,
General Manager.

The motion for the adoption of the report was then put to the meeting and carried. Amendments to the by-laws regulating the number of directors of the bank were passed, and Mr. T. Harry Webb, C.A., of Messrs. Webb, Reid, Hegan & Callingham, Montreal and Winnipeg, and Mr. James Marwick, C.A., of Messrs. Marwick, Mitchell, Peat & Co., Montreal, were appointed auditors of the bank, their remuneration not to exceed the sum of \$15,000 for the year. The usual resolutions expressing the thanks of the shareholders to the Board of Directors and also to the staff of the bank were unanimously carried. Upon motion the meeting proceeded to elect directors for the coming year and then adjourned.

The scrutineers subsequently announced the following gentlemen to be elected as Directors for the coming year: Sir Edmund Walker, C. V. O., LL. D., D. C. L., Hon. George A. Cox, John Hoskin, K. C., LL. D., J. W. Flavelle, LL. D., A. Kingman, Hon. Sir Lyman Melvin Jones, Hon. W. C. Edwards, Z. A. Lash, K. C., LL. D., E. R. Wood, Sir John M. Gibson, K. C. M. G., K. C., LL. D., Robert Stuart, George F. Galt, Alexander Laird, William Farwell, D. C. L., Gardner Stevens, A. C. Flumerfelt, George G. Foster, K. C., Charles Colby, M. A., Ph.D., George W. Allan, H. J. Fuller, F. P. Jones. At a meeting of the newly-elected Board of Directors held subsequently, Sir Edmund Walker, C. V. O., LL. D., D. C. L., was elected President, and Mr. Z. A. Lash, K. C., LL. D., Vice-President.

The Windrow.

Henrik C. Andersen, an American-Scandinavian sculptor now living in Rome, has recently published a remarkable book explaining a remarkable project, i. e., for the building of a world's capital, an ideal world city, as a center for all international movements. The book contains complete plans for every part of the city, and embodies the work of forty artists, architects, sculptors and engineers engaged by Mr. Andersen, at an outlay of \$150,000. The city, as planned, is to be a city of "light, health, and beauty," and may be situated anywhere that the nations may choose. The plans show International Congress buildings for medicine, surgery, law and invention, with an International Hall of Justice and a Temple of Religions, a world's reference library, and institutions for the advancement of science and art and all higher learning.

A story is told of Prince George, fourth son of the King and Queen. It appears that the young Prince, who is being educated at a private school, is sufficiently like boys of humble rank for getting into trouble occasionally with his head master. Then follow long interviews in the study. The Prince's fellow-pupils felt rather curious after an unusually long interview one day, and wanted to know what had happened. One of them said: "I say, George, you've been an awful long time in there. What does he do to you?" To which the answer was: "He doesn't do anything; but he tells the bally gov'nor!"—Otago Witness.

A number of prominent Washington women, members of the Housekeepers' Alliance, have established a school for servants in which girls are to be thoroughly taught all branches of house-keeping.

The tube of the greatest telescope in the world is now being built in Cleveland, Ohio, for the Dominion Government of Canada. The object glass will have a diameter of 72 inches, and the weight of the instrument will be at least fifty tons.

In memory of the late Lady Curzon, a women's hostel has been erected in King's Cross road, London, W.C. In the hall is a tablet inscribed: "This building, to be known as the Mary Curzon Hostel, was erected in 1913 by the relatives and friends of a woman tender-hearted and beautiful, who in her short life sought to make the lives of women happier in many lands. Mary Victoria, wife of Lord Curzon, of Kedleston. Born 1870; died 1906." The lady referred to was the eldest daughter of the late Levi Zeigler Leiter, the American millionaire. She married Lord Curzon in 1895, and left him with two daughters.

Recently a rather remarkable gathering was assembled at Sunderland House, the London residence of the Duchess of Marlborough. It consisted of peers, cabinet ministers, noted authors, and others, also about twenty women earning from \$1 to \$3 a week, and working from ten to fifteen hours a day, women assembled at the invitation of the Duchess, that they might tell their own story of the conditions under which they live to men with influence to better those conditions. That the experiment was not without effect may be judged from the fact that \$4,000 was gathered on the spot to assist the society that has been formed to do away with sweating. It was shown that over 300,000 women in England work ten hours a day and earn under \$3 a week, while many thousands earn less than \$2 a week. Weak tea and bread form the diet upon which these women have to live and work.

Miss Haldane, sister of Lord Haldane, is one of the most cultured women of today. She is a B.A. of Girton, writes well, and reads widely. She does exquisite needlework, and has reproduced some beautiful pieces of embroidery. She is also much interested in spinning, has a spinning-wheel of her own, and encourages the industry among the peasants on the family estates in Perthshire. She

has also designed a number of Scotch tweeds, which, in the woollen business, are known as Scotch tweeds.

At the World's Fair in St. Louis, the only day dedicated to any human being was set apart, not to the honor of statesman or admiral, educator or inventor, but to that of a frail girl, blind and deaf from infancy. The day was known as "Helen Keller Day," and upon it the wonderful girl addressed an immense audience, many of whom were deaf. Since then she has delivered many addresses. She learned to read a connected story in 1887, "and from that day to this," she says, "I have devoured everything in the shape of a printed page that has come within reach of my hungry finger-tips." She uses the typewriter in five languages, has learned to speak with clear articulation, can swim, row, play cards, chess, and basketball; dance, and perform a hundred other seemingly impossible things. Her memory is marvellous, her temperamental sunny and happy; her mind is wonderfully broad, subtle, and thorough, and her book, "The Story of My Life," besides being great as a biography, is the most important work of the century on psychology as a revelation of the human mind, its methods and possibilities.

The combination school for farmers is an idea that is being worked out in different sections of the country. At Northampton, Mass., and in some schools and academies of the Northwest, this type of school is organized on high-school plans and aims to give the children the kind of education most adapted to farm life. Attached to the school is a farm, where they are given regular lessons in the construction and repair of farm buildings, use of machinery and tools, and best methods of raising the leading crops of the sections. So far the plans seem to work well, and not only gives the children a good, practical training, but it helps improve the agriculture of the neighborhood by reason of the practical teaching which the children carry home to the farm. The new idea seems to make the school a leader in everyday agricultural life.—American Cultivator.

News of the Week

CANADIAN.

Sir James Whitney, Premier of Ontario, was brought home from New York on January 19th, and taken to the General Hospital, Toronto. At time of going to press, his condition is somewhat improved.

BRITISH AND FOREIGN.

Two important discoveries which, it is expected, will reduce the great cost of extracting radium from pitchblende and carnotite, have been made at the University of Pennsylvania.

It is reported that Lord Rothschild has bought an estate in Palestine for Mendel Beilis, the Jew who was accused and acquitted of the charge of ritual murder.

Colonel Gorgas, who had charge of the sanitary department during the construction of the Panama Canal, and who succeeded in making the hitherto fever-breeding isthmus as healthful as any favored part of the globe, has been appointed as Surgeon-General of the United States army.

The official loss of life caused by the eruption of Mount Sakura-jima, Japan, is placed at 200, but several thousand people are still missing.

Argentine wheat is now on the free list, and can enter the United States without payment of duty.

The United States proposes to build an extensive system of land fortifications on the Hawaiian Islands as a naval base.

The SPRAMOTOR Does All That is Humanly Possible For Growing Things!

START an orchard, a vineyard, a field of potatoes or any thing that grows, and let it take care of itself. That's one way of being a grower. It may seem strange to you who read this, but there are still some men who go blindly ahead trying to achieve the impossible—trying to raise a perfect crop from a neglected field or orchard. Here's another way:—

Spray your plants, vines or trees with the efficient SPRAMOTOR. Did you ever consider that trees, shrubs, vines and plants—with few exceptions—are quite unequipped by Nature to combat their many foes? They are the legitimate prey of tunnelling insects, burrowing grubs, blight, worms, canker, scale, rust, lice, and the countless pests and parasites that house in and upon them.

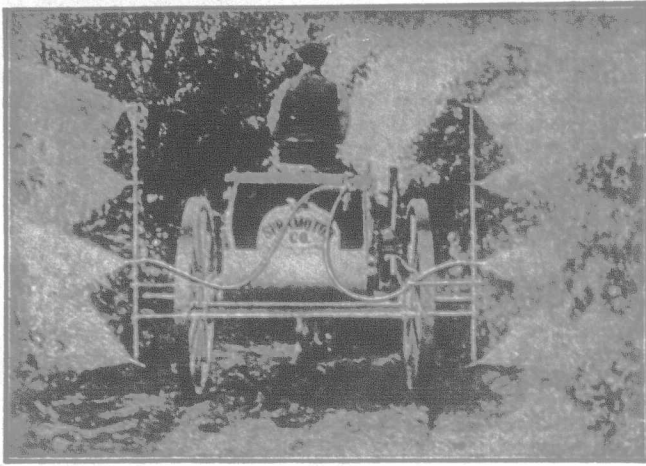
The man who grows fruit trees, vines or row crops for a living should be sufficiently alive to his own interests to supply the protection which Nature has withheld and so bring his crop to the pitch of perfection.

What Excuse Have You For Not Owning a SPRAMOTOR?

If you are a small grower, let us tell you that we make reliable, durable, efficient SPRAMOTORS from \$6 up. If you are in the business on an extensive scale, remember that we make horse-power and gasoline engine SPRAMOTORS up to \$350.



Spraying for a big fruit crop. Model "C", Gasoline SPRAMOTOR.



Vineyard Spramotor Killing "Rot"

We Make SPRAMOTORS—Nothing Else!

For years, our best efforts have been directed to the one goal of producing the best spraying outfit sold. We have won over a hundred first awards and gold medals with SPRAMOTORS at different exhibitions, fairs and contests. SPRAMOTORS got the first place at the Canadian Government Spraying Contest, Grimsby, Ont., out of eleven machines entered. That means something—and the Canadian Government has used this machine ever since.

Perfect Spraying is What You Want!

and only a perfect machine will do that kind of spraying. Don't you think that a machine that took first place at Government tests in competition with eleven other makes, is as near perfect as has been produced? A SPRAMOTOR—at any price—will be immeasurably superior to any other at a similar figure. Why not have the best there is, when it costs no more? You can't afford to take chances and do "hit-or-miss" spraying.

FREE!

Take advantage of this! Write us, stating what you consider are your spraying requirements; this will put you under no obligation whatever. By return mail we will send you our valuable treatise (illustrated) on "Crop Diseases", their prevention and cure, together with the SPRAMOTOR catalogue describing our whole line. Write while you are at this page!

SPRAMOTOR LIMITED, 1730 King Street, LONDON, CANADA

and protection to the Panama Canal and Pacific Coast.

Edwin Ginn, founder of the World Peace Foundation, died on January 21st, at his home near Boston. He was 74 years of age.

President Wilson has had drafted his purpose concerning Trust legislation. This embodies a sweeping prohibition of interlocking directorates, provides for the location of individual responsibility for unlawful monopoly and imprisonment of offenders, adds to the Sherman Act, and aims to create a commission to make inquiry into illegal combinations, to assist the Department of Justice, and supervise the enforcement of dissolution decrees.

The People of the Whirlpool.

[Serial rights secured from the Macmillan Publishing Co., Toronto and New York.]

By Mabel Osgood Wright.

Chapter XIV. THE OASIS.

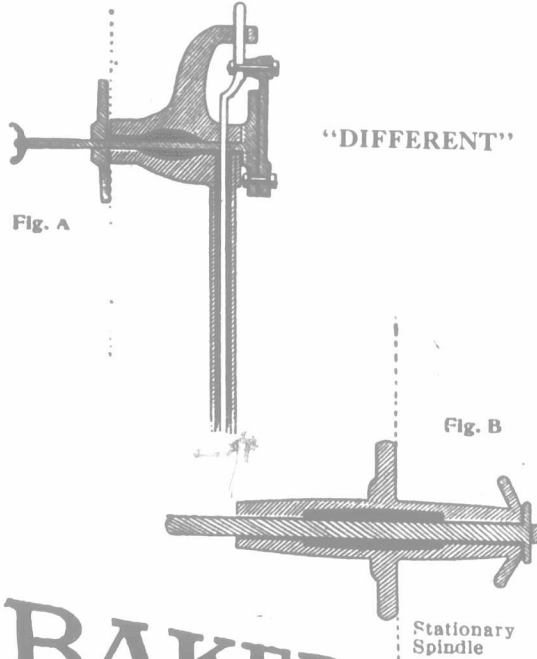
September 8. Three lowering days of wind and rain, and summer, after a feigned departure, has returned to complete her task of perfecting.

WINDMILLS

Fig. "A" shows wearing out of line of old style shaft. Fig. "B" shows uniform wearing whole length of bearing when stationary spindle is used.

Keying the wheel to a shaft and turning the shaft in a boxing has given place to our method of using a stationary spindle, the wheel to revolve around the spindle, as shown at Fig. B.

The advantages gained can be readily seen. The weight of wheel is equally distributed on spindle, the wear is uniform the entire length of spindle. The wheel will never dip towards the tower. No part can be thrown out of line, while with other mills the weight and leverage of the wheel keyed to the end of shaft will wear the lower side of the out boxing and the upper side of the inside boxing. The wheel and engine will become out of line, requiring new parts. The use of the stationary spindle brings the wheel close to the tower which greatly lessens wear. Supporting the weight of the wheel directly over hub reduces friction, and substantiates our claim that it is the easiest running mill in the world.



The Neller-Aller Co. WINDSOR - ONT.

BAKER

She does this year after year—the marvel is that we are ever deceived; but after all, what is it but the conflict between arbitrary and natural law? The almanac-maker says that on the first day of September autumn is due. Nature, the orbit-maker, proclaims it summer until the month three-quarters old, the equinox is crossed. Nature is always right, and after the usual broomy argument sends summer, her garments a bit storm-tattered, perchance, back to her own.

The ill wind that dashed the tall auratum lilies in the garden to the ground, stripped the clinging fingers of the sweet peas from their trellis, and decapitated the heavy-headed dahlias, has blown me good, held me indoors awhile, sent me to my attic confessionals once more, with conscience for priest, and the twins for acolytes, though they presently turned catechists with an entirely new series of questions.

When I have not opened my desk or my garden book for some time, and the planting season, be it of spring or of autumn, as now, overtakes me unawares, I am always newly convinced that gardening is the truly religious life, for it implies a continual preparation for the future, a treading in the straight and narrow path that painful experience alone can mark, an absorption beyond compare, and the continual exercise of hope and love, but above all, of entire childlike faith.

When the time had come in the creative evolution for the stamping of the perfected animal with the Divine image that forever separates him from all previous types, it was no wonder that God set man, in whom the perpetual struggle between the body and soul was to take place, in a garden for his education.

Recently the boys have been absorbed in their little printing press, which they have established in my attic corner, the present working motive having come from the card announcing Sylvia's marriage to the world in general, according to Mr. Latham's desire. Richard secured one of these and busied himself an entire morning in setting it in type, for the first time in his experience getting the capitals and small letters in their proper places. The result was so praiseworthy that Evan hunted up a large box of ornamental cards for them in town, and for two days they have been "filling orders" for every one in the household.

I print the names they wish to copy very distinctly in big letters. Richard does the type-setting, which is altogether too slow work for Ian, who, as pressman, does the inking and printing, and in the process has actually learned his tardy letters. As to the distributing and cleaning of the type, I find a little assistance is gratefully accepted, even by patient Richard, whose dear little pointed fingers by this time have become tired, and fumble.

To-day, having exhausted the simple family name, they have tried combinations and experiments with the words Mr., Mrs., and Miss, much to their own amusement. "Miss Timothy Saunders" being considered a huge joke.

Suddenly Ian looked up with one of his most compelling, whimsical smiles, and said, "Barbara, grandpop's Mrs. was grandma, and she's in heaven, but where is Mrs. Uncle Martin?"

Rather startled, I said that I didn't know,—that there had never been any Mrs. Uncle Martin.

"Why not?" persisted Ian, an answer that is simply an acknowledgement of ignorance never being accepted by a child. Before I could think Richard chirped out: "But Aunt Lavinia hasn't any Mr. for her card neiver, and Martha, she said the other day that there was a Mr. and a Mrs. for everybody, only sometimes they couldn't find each other for ever so long. She told that to Fille, and I heard her."

A short pause, and then Ian jumped up, clapping his hands with joy, as the solution of the problem flashed across him.

"I know what's happened, Barbara; maybe Uncle Martin's Mrs. and Aunt Lavinia's Mr. has gone and got lost together, and some day they'll find it

Dr. Maria Montessori

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and natural law
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her garments a
chance, back to

out and bring each over back! Do you think they will, so we can have some more weddings and pink ice cream, and couldn't we hurry up and help find them? I guess we better print him some Mrs. cards so as in case."

I had drifted into gardening work on paper again, and I believe I said that he had better ask Uncle Martin what he thought about the matter, and at that moment the bell rang for luncheon.

The ringing of bells for meals in this house is what Lavinia Dorman calls "a relic of barbarism," that she greatly de- plores; but as I tell her, our family gathers from so many points of the compass that if the maid announced the meals, she would have to be gifted with the instinct of a chaser of strayed freight cars.

Ian's queries have brought up a subject that has deluded and eluded my hopes all summer, and has finally ended in the people that I hoped would drift through the doorway of one of my most substantial air castles refusing so to do, or else being too blind to see the open door.

Martin and Lavinia are the best possible friends, have been constantly in each other's society, see from nearly the same point of view, and both agree and disagree upon the same subjects, but they have not settled the question of loneliness of living as I hoped, by making the companionship permanent, via matrimony.

Of course, I did not expect them to fall in love exactly as Evan and I or Horace and Sylvia did—that belongs to spring and summer; still, I thought that when they started worm-hunting together, and played checkers every evening, that they were beginning to find each other mutually indispensable, at least.

But no. Martin stored away his papers in the old desk, and went to New York a week ago to see several suites of bachelor apartments that had been offered him.

He writes this morning that he has found one to his liking, and will return to-night, if he may, and stay over to-morrow to pack his things. Meanwhile Miss Lavinia has sent her maids to clean and open her house in "Greenwich Village," and will go home on Monday, spending her final Sunday with me. Josephus went with the maids; the country had a demoralizing effect upon him.

Miss Lavinia has been agitating moving uptown, several of her friends at the Bluffs insisting that an apartment near the Park is much more suitable for her than the little house so far from the social centre, saying it is no wonder she is lonely and out of things; but yesterday she told me that she had abandoned the idea of change, and had sent orders to have her old back yard garden dismantled and the whole plot paved, as it is now only a suitable place for drying clothes. Also that she had written to ask her father's cousin Lydia, whose Staten Island home had been built in by progress, very much like her own garden, to come to pass the winter with her; and, lest she should repent of so rash an act, she had given the letter to Evan before the ink was fairly dry, as he passed the cottage on the way to the train, that he might post it in the city.

One consolation remains to me in the wreck of my romantic hopes for her—Miss Lavinia has liked our neighborhood so well that she has taken the Alton cottage that she now occupies on a three years' lease, and intends living here from May to October. The rambling garden is full of old-time, hardy plants and roses, and oh, what good times we shall have together there next spring, for of course she will stop with me when she is getting things in order, and I can spare her enough roots and cuttings to fill every spare inch of ground,—so, with Sylvia at Pine Ridge, what more can I ask? The strain and tubbub of the Bluffs seems to be quite vanishing from the foreground and merging with the horizon.

That reminds me that the people are drifting back quite rapidly now. The golfers are afield again Sundays, and all talk of introducing fox hunting with tame foxes; but they will have to learn the land, with its dips and rocks, better first, or there will be a pretty crop of cracked crowns for father. At present, I think that New England Pre-

judice will soon, however, get the upper hand here, and tighten her hold of the reins that seemed slipping from her grasp, which is well, for she has long borne aloft the only standard of national morality whose code is not a sliding scale.

September 9. Martin came back to-night. As he entered the house with Evan I positively did not know him, for he has shaved off his mustache and queer little pussy-cat whiskers, and with them has gone his "pudginess." He is really a very fine-looking man, and his features are developed by the shaving process in an unexpected way. He seems so wide awake, too, and alive to everything that passes, that I could see that father, who came from the office to greet him, had difficulty in restraining his surprise, but he contented himself by asking:—

"How did you fare with the publishers? Did you fall among thieves or among friends?"

"That is equivalent to asking if my book has been accepted, as it is only when work is refused that we call the mediums through which we seek to reach the public hard names. Yes, the fate of my book is soon told: it has found its place, and it is to be fully illustrated as well, though it will take me many months to collect the unique material they desire; this insures me a busy winter, for which I am not only prepared but eager.

"I wish I could as easily tell you what this summer here has done for me, Dick," and he leaned over the chair in which father had seated himself and laid his arm affectionately across his shoulder. "I think in asking me here you rescued me from as dangerous a condition of mental apathy as when you stood by my bed so many years ago."

"Don't thank me," said father, leaning back and looking up at him, "thank God's sunshine, work, the babies here, and why not woman's society also,—you used to appreciate that, too, eh, Martin, old man? Give everybody his, or rather her, due."

"Yes," I heard him answer, as if pondering the matter, while I fled discreetly upstairs at this juncture, "you doubtless are right; Lavinia Dorman's criticisms have been of infinite value in ridding my work of a litter of words that encumbered the spirit and purpose of it. She is direct and to the point, and yet withal most sympathetic. I had thought of dedicating the book to her in some private way, for really we are joint heirs, as it were, in so many traditions and habits of old New York, that it would not seem strained or inappropriate."

"On the contrary, I think it most suitable, and I would not go to any great pains to hide the compliment of the dedication under a bushel of disguise either, if I were you. The Lydia Languish age of abnormal privacy and distorted, unhealthy sensibility has fortunately passed. Nowadays women like men to be direct, outspoken, definite, where they are concerned."

"Do you think so?" asked Martin, in real surprise. "I feared possibly that it might annoy her."

"I know so—annoy her, fudge!" was father's comment.

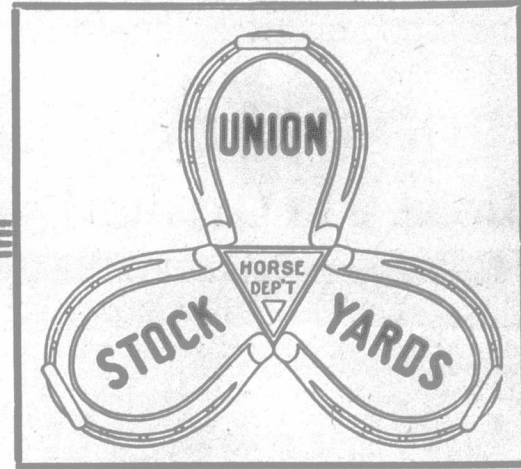
When we went in to dinner, Miss Lavinia at once noticed the change in Martin's appearance, and said, in a spirit of mischief which of course I alone noticed:—

"Back from the city, and with new clothes, too,—how very smart and becoming they are."

But poor Martin was quite guileless, and looking down at his coat in a puzzled way, as if to make doubly sure replied, "No, it cannot be my clothes for they are the same." Then, brightening, as the possible reason occurred to him: "Perhaps it may be my shaven face; you see, the barber made an error in the trimming of my decorations yesterday, and he thought it better to take them entirely off and have them grow afresh, but I had not thought of the matter in the light of an improvement."

"But it is one, most decidedly," continued Miss Lavinia, nodding brightly across at him, while father, who now realized the change he could not locate, cried:—

"Don't let them grow again, my boy. You look ten years younger at the



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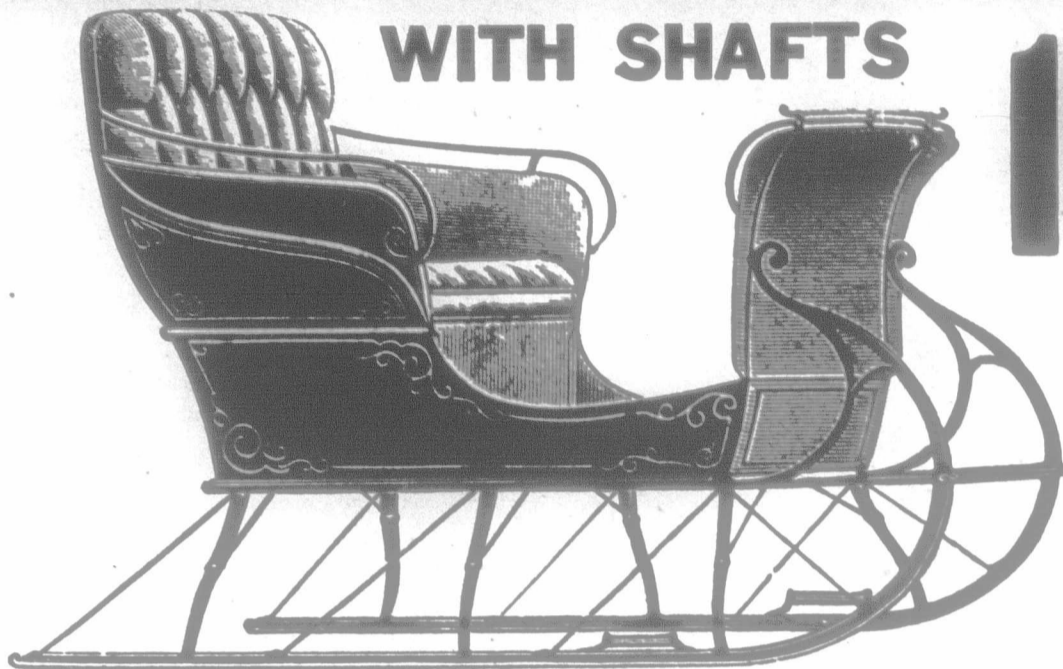
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very least, which you know at our age is not to be despised!"

Then we all grew hilarious, and talked together like a lot of school children, and when the boys came in to dessert, as usual, they also were infectiously boisterous over the catching of some bass in the river where Timothy Saunders had taken them that afternoon as a special treat. They clamoured and begged so for Uncle Martin to stop over the next day for fishing and have one more good time with them, that he, feeling flattered almost to the point of embarrassment, yielded upon Evan's suggesting that, instead of going by the eight o'clock morning train as he intended, he could wait for one late in the evening, which would get him to town before eleven. For Martin was to move into his new bachelor apartments the following morning.

The three men lingered long at the table, smoking, the talk punctuated by long periods of silence, each regretting in his own way the present terminating of the summer intercourse, and yet I fancy, realizing that it had lasted exactly the safe length of time. To be able to adapt oneself temporarily to the presence of outsiders in a house is a healthy habit, but to adjust a family to do it permanently is to lose what can never be regained. Miss Lavinia and I agreed upon that long ago, and for this reason I am very much surprised that she has asked her cousin Lydia to spend the winter, with a view of making the arrangement permanent.

The boys brought some of their games downstairs and succeeded in adding half an hour to their bedtime by coaxing Aunt Lavinia to play with them, until I finally had to almost carry them to bed, they grew so suddenly sleepy from their day's fishing.

When I returned below stairs after the boys were asleep, father had gone to the village, Evan was walking up and down outside, all the windows and doors were open again, and the sultry

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air answered the katydids' cry for "Some-more-heat, some-more-heat."

Miss Lavinia was still in the hall, sitting on the lower step of the stairs, for the boys had been using the broad landing that made a turn at the top of the three steps as a place to play their games. Martin stood leaning on the newel post, and from the few words I heard I knew that he was telling her about the proposed dedication, so I went out and joined Evan, for it seems as though we had little leisure outdoors together of late, and as if it was time to make it up as best we might.

Then, once again, as we crossed the streak of light that streamed like a narrow moon path from the doorway, Evan paused and nodded his head toward the hall. I turned—there sat Miss Lavinia and Martin Cortright on the stairs, playing with the boys—jack-straws!"

"After this, what?" I asked, in my mirth leaning backward on Evan's supporting arm.

"To be pat, it ought to be the deluge," chuckled Evan; "but as these are prosy times, it simply means the end has been reached, and that to-morrow they will put away mild summer madness, and return to the Whirlpool to paddle about decorously as of yore."

I find that I am not the only person who is disappointed at the absence of matrimonial intentions between Martin and Miss Lavinia. The postmistress told me yesterday that she's been expecting to hear of a second wedding any day, as when one took place it always meant three, though she couldn't "fetch the third couple together, even in her mind's eye," which I have found to be usually a capacious and well filled optic.

Mrs. Barton also stopped Martha Corkle on the road, and said with an insinuating sneer, "She'd always supposed that the gentleman from New York who lodged with her was making up to the proud old maid at the Doctor's, but as he evidently wasn't go-

Dr. Maria Montessori



Add water to milk—
 You weaken the milk.
 Add soft wheat to flour—
 You weaken your flour.
 Cheapens it too.
 Soft wheat costs less—worth less.
 Soft wheat flour has less gluten—less nutriment.
 Your bread is less nutritious, sustaining, economical.
 Soft flour has less strength, less quality gluten.
 Giving less good things for your money and things less good.
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FIVE ROSES is all Manitoba.
 Without a grain of cheaper wheat.
 Strengthen your food values.
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Not Bleached



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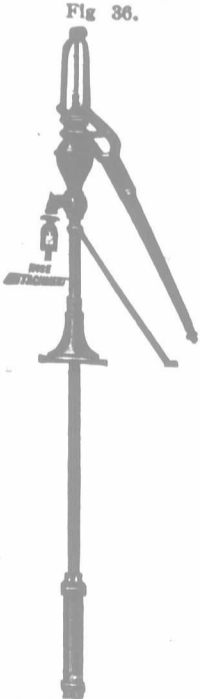


Fig. 36. This represents our Superior Lever Pump, fitted for hand and windmill use. Made in 1 1/2 and 2-inch.

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The base is adjustable admitting of top being raised or lowered to any position desired.

The handle is drilled for three lengths of stroke. Six, eight, and ten-inch stroke.

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ing to, she'd advise Mrs. Evan to watch out, as Miss Lavinia, doubtless being disappointed, might set her cap for the Doctor himself, and then the Lord knows what would happen, men being so easily flattered and trapped."

Martha was indignant, and I must say very rude, for she snapped back: "I wonder at the same bein' your holdin', Mrs. Barton, bein' as you've five maid daughters that's not so by the desirin', folks do say as knows."

Mud throwers should be careful to wear gloves,—their ammunition is sticky.

September 10. This morning father and I were obliged to go to town upon some hospital business, as we had to remain there for luncheon, or perhaps took the train instead of driving over longer, leaving Lavinia to pack, so that she might have a free Saturday to drive with me to bid Mrs. Bradford good-by, and learn the latest news of Sylvia and Horace. Meanwhile the boys were to go fishing with Martin, who is as careful of them as possible, taking their lunch with them.

They did not have good luck, however, and growing restless and tired of fishing without catching, Martin brought them home by three o'clock, and as both he and Miss Lavinia had finished their preparations for leaving, they went out to the seat by the rose arbour to enjoy what was left of the glorious afternoon, for it has been one of those days that come in dreams, so perfect that one knows it cannot last.

"I hope that I shall not lose all track of you this winter," said Miss Lavinia. "Of course you will be busy, but you might spare a lonely woman an evening now and then for piquet, or what if Evan or the Dester should come to town."

"Lose track of you, Miss Lavinia,—how could that be possible?" queried Martin in mild-eyed astonishment.

"You know there will be a second volume of the book for you to read and criticise, besides all the illustrations to discuss. No, I hoped that you could spare me two definite evenings every week, at least until the work is in press, though I suppose that is asking a great deal of a woman having so many friends, and places to go."

"If you could see the way I spend my evenings alone, you would not hesitate. Of course I do dine out once in a time, and people come to me, but between times—I envy even Josephus, who can have social enjoyment any time by merely scratching on the door and running along the palings to the neighbors."

"I am glad, for I decided upon taking the Washington Square rooms, instead of moving up nearer the Clubs as my friends advised, because I thought it would be so much more convenient if, in proof correcting, I should require to consult you hastily."

Miss Lavinia felt a pleasurable flush rising to her cheeks, when it was chilled by the memory of her invitation to her cousin Lydia. Why had she given it? Then the realization that a third party would be unwelcome to her made the flush deepen.

"Uncle Martin, where is your Mrs. ? Barbara said I'd have to ask you 'cause she didn't know," suddenly asked Ian's voice, so close behind them that they both started. He had been up in the attic to get some of his precious cards, one of which he now held in front of Martin Cortright's gaze.

"My Mrs.! Why, what do you mean?" he asked in uncomprehending astonishment, taking the boy on his knee; but when the little scamp had explained, the stupidest person in the world could not plead ignorance.

"And," Ina continued, "Dick and me thought that p'raps if your Mrs. and Aunt Lavinia's Mr. had got lost to—"

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The CROSS FERTILIZER CO., Limited
Sydney, Nova Scotia

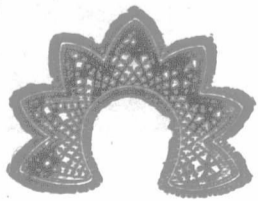
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Our Laces were awarded the Gold Medal at the Festival of Empire and Imperial Exhibition, Crystal Palace, LONDON, ENGLAND, for general excellence of workmanship.

BUY some of this hand-made Pillow Lace, it lasts MANY times longer than machine made variety, and imparts an air of distinction to the possessor, at the same time supporting the village lace-makers, bringing them little comforts otherwise unobtainable on an agricultural man's wage. Write for descriptive little treatise, entitled "The Pride of North Bucks," containing 200 striking examples of the lace makers' art, and is sent post free to any part of the world. Lace for every purpose can be obtained, and within reach of the most modest purse.



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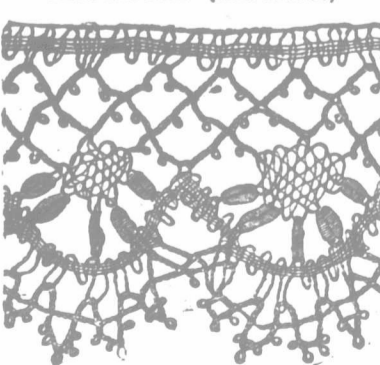
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No. 122.—30c. per yard.

Mrs. Addie Armstrong, Olney, Bucks, England

gether we could find them for you, and then there'd be two more weddings with pink ice cream. We're going to look this afternoon, and we're going to ask Martha to help us, 'cause she found her Mr. after he'd been lost a great while, Effie says."

"And he was right here in the place, too," chimed in Richard, "only he didn't seem to see her, so p'r'aps yours aren't far off, and we might get them in time to have the wedding to-night before you go. Wouldn't you like to be in a wedding, Aunt Lavinia?"

"Mercy no, child, I'm too old!" she ejaculated, now as red as a Jacqueminot rose, while the boys ran off in the direction of Martha's, to ask her where it was best to begin this important quest, the prize for which was pink ice cream.

Miss Lavinia did not look up for a moment, and when she did she found Martin's eyes fastened on her face, and in them a strange enlightenment that shook her like an electric bolt, as he arose and stood before her, saying:—

"You need never be old. Some prefer June strawberries and other September peaches, that is all. When once in June I thought to gather the strawberries, I found they belonged to another, for I loved your friend, who was Barbara's mother."

"And I loved your friend, who is Barbara's father," Miss Lavinia said, rising and facing him.

"As they married each other, why may not we? I know now why my work has prospered this summer and why life seems good again. Ian's little fancy shows me the truth."

"Our Mr. and Mrs. were not far off, then," said she, laying her hand on his, while she looked into his face with one of those rare smiles of unreserved confidence that makes Lavinia Dorman more fascinating than half the younger women that I know.

After a moment of romance they waked up to the fact of the present and its comical aspect: the boys' talk of weddings brought that necessary episode quickly before them.

"May I tell the Doctor when he returns? Shall we tell them all?" asked Martin, eagerly, and Miss Lavinia sat suddenly down again and realized that she still was in the world of responsibilities.

"I think I would rather wait and do it all at once, after—the pink ice cream," she said, as he laughed at her hesitation over the word. "I don't like keeping it from Barbara, but I'm so tired of talk and fuss and feathers and Mrs. Grundy."

"Then let us get it quietly over next week, or to-morrow, if you say, unless you wish time to feel sure, or perhaps to think it over," said Martin, with enthusiasm.

"Time to think it over!" cried Miss Lavinia, springing lightly to her feet, "No, I'm sure I don't wish to think, I want to act—to do things my own way and give no one a chance to speak until it is done. What have I been doing all my life but thinking, and waiting for it to be a convenient and suitable time for me to do this or that, wondering what others will think if I do or don't; thinking that the disagreeable was duty, often simply because it was disagreeable. Surely you have been hampered by this perpetual thinking too, and watching the thumb of custom to see if it pointed up or down. No, I'm done with it. We've agreed to be married, so why not this very afternoon, and have the wedding over before you go, as the boys suggested?"

"The best possible idea, though I should have hardly dared suggest it," said Martin, tramping to and fro in excitement. "How shall we manage? Go down here to the rectory?"

"I would rather go over to town," said Miss Lavinia, beginning, in spite of herself, to realize difficulties. "We do not know who might drop in here."

"Very well," said Martin, decisively, looking at his watch. "I have it! Timothy is off to-day; I will harness the grays to the stanhope, as we can't wait to send to the stable, and we will drive over the back way by the Ridge and be home again by dinner time. The rector of All Saints' was a classmate of mine, and I met him again only the other day, so we shall have no trouble there."

"Are you sure you can harness the horses properly?" asked Miss Lavinia, with characteristic caution, and then smiling at herself, as Martin hurried off to the stable.

In less than twenty minutes the sober gray horses turned out of the stable yard and up the road upon the most remarkable trip of their career. Nothing strange was noticeable about the turnout, except that the traces hung a trifle loose, and the occupants sat unusually far back under the hood for so pleasant an afternoon. That is, until after they had passed Martha's house in the lane and turned onto the unfringed back highway, then they both leaned forward, gave a sigh of relief, and, looking at each other, laughed aloud.

"Do you realize that we are eloping, like runaway school children?" said Miss Lavinia, "we two hitherto sober-minded Knickerbockers?"

"I realize that I like what we are doing very much, whatever it may be called," replied Martin, "and that it is very considerate of you to spare me and do it in this way. The conventional affair is very hard on a man of my years, all of whose contemporaries are either bald or rheumatic; besides, now I think of it, it is merely carrying out the ever-present precedent. My father's great-great-grandfather and mother eloped in 1689 from Staten Island to the Bouerie, and the boat upset when they were going back."

"Mercy on us!" exclaimed Miss Lavinia. "I hope we shall not upset! I wonder if the wheels are on securely. I thought I heard something rattle. There it is again."

As they reached the bottom of the long hill, Martin let the reins hang loose on the horses' necks and, lowering the hood, looked back to see if he could find the cause of the jolting sound accompanied by panting, as of a dog running. Then he gave an exclamation of impatience, and pulled the horses up short, for there, alternately running and lifting up their feet and swinging, were the twins, clinging to the back of the gig!

Miss Lavinia gave a cry of dismay. "Where did you come from, and where are you going?" she questioned rather sharply.

"We went to Martha's, you know," said Ian, as if his errand had been one of such importance that it was impossible she should forget it, "and she wasn't there, so we thought we'd just look for those people we said about, by ourselves. But we couldn't find anybody, only a shiny black snake by the road, and he rubber-necked at us and spit some 'fore he ran away. Then we saw grandpop's horses coming, and when you went by we hooked on, and—"

"Cause we thought if you was looking for those people and found them, then we'd be there for the pink ice cream," added Richard, cheerfully, supplementing Ian's story when his breath gave out.

"I suppose we must turn around and take them home," said Miss Lavinia, with a sigh.

"Not a bit of it. Let them come with us; it is too late to turn back, unless," he added, with a ring of mock humility in his tone, "you have changed your mind and wish time to think. As for me, I've turned my back on even thinking whether they will be missed or who will worry."

"Scramble in, boys, and curl up here in front. You are just in time; two of these people you were searching for are going to be married this afternoon. We are going to the wedding, and you shall be best men," and the boys settled down, chuckling and whispering, but presently Ian looked up, as light dawned, and cried: "I spy! It's you, Uncle Martin, and Aunt Lavinia is your Mrs., only you couldn't find her all summer till to-day" and he hugged his friend around the legs, which were all he could reach, but Richard leaned backward until his head rested on Miss Lavinia's knees, and he reached up his cooling lips to be kissed.

The rest of the ride to town was uneventful, except that when they reached the outskirts they met Jenks-Smith coach loaded with Whirpool people, but the Lady of the Bluffs saw nothing

Dr. Maria Montessori



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A prominent Canadian dairyman has often remarked: "A clean, well-ventilated stable, with cement floors and walls, and equipped with Steel Stalls and Stanchions, pays best for any farmer, whether he is fattening stock or is going in for milkers, whether he has three cows or three hundred."

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strange in the combination, and merely shook her parasol at them, calling, "I'm sorry to hear you're fitting, just when it's getting lively again, too!"

Fortunately the rector of All Saints' was at home, likewise requisite number of his family, for witnesses. Then it transpired that the couple had never thought of the ring, and while Martin went out to buy one, Miss Lavinia was left sitting on the edge of a very stiff sofa with a boy on either side of her, with the Rectory family drawn up opposite like an opposing force, which did not encourage easy conversation.

However, the agony was soon over, and the bride and groom left, Martin giving his old classmate, to whom the world had been penurious, a hand-shake that, when examined by the breathless family a few moments later, was found to yield at least a new parlor carpet, an easy-chair for the Rector's bent back, and a new clerical suit to cover his gaunt frame.

"Now comes the pink ice cream," sang Ian, dancing a-tiptoe as they reached the street: and there being but one good restaurant in town, on the high street, next to the saddler's shop where the red goat harness was still displayed, the party drove there, and the pink ice cream was eaten, good and full measure thereof, while on their way out the coveted goat harness found itself being taken from the window to be packed away under the seat of the gig.

It was almost dinner time when father and I returned to-night, and the boys were squeezed together in a chair on the piazza, close to Miss Lavinia, while Martin sat near by on the balustrade. The boys were in a great state of giggles, and kept clapping their hands to their mouths as if they feared something would escape. I hurried upstairs, not wishing to make dinner late, as I knew Martin expected to take the nine o'clock train, just as father came in saying that Timothy had returned, and that he found the horses in a wonderful sweat, and feared they were sick, as they hadn't been out all day.

By this time we were in the hall and walking toward the dining-room. Martin stopped short, as if to say something, and then changed his mind, while a bumping at the pantry door attracted the attention of us all.

Out came Ian, a portion of the goat harness on his head and shoulders, followed by Richard, around whose neck the reins were fastened, and between them they carried the great heavy silver tea-tray only used on state occasions. In the centre of it rested a pink sofa pillow upon which some small flat object like a note was lying.

They came straight across the hall, halting in front of me, and saying earnestly, "We didn't ask for the harness, but Uncle Martin says that people always give their best mens presents." I looked at him for a second, not understanding, then Evan, with a curious twinkle in his eye, strode across, whispering to me, "The Deluge," as he picked up the card and read aloud, "Mrs. and Mr. Martin Cortright!" It was the card that Richard had printed several days before and

carried in strange company in his warm, mussy little pocket ever since.

There was tense silence, and then a shout, as Martin took his wife's hand that wore the wedding ring and laid it on mine; then he and father lairily hugged each other, for father did not forget those long-ago days of the strawberries that Martin could not gather.

When the excitement had subsided and dinner was over, Martha and Tim, to whom the horse matter had been explained, came over to offer their congratulations,—at least Martha did. Timothy merely grinned, and, to the best of my belief, winked slyly at Martin, as much as to say, "We may be long in knowing our minds, but when we men are ready, the the weemen fair tumble over us."

"Indeed, mum, but I wish you joy, and that he'll lead you as easy a life as Tim'ther here does me, 'deed I do, and no disrespect intended," was Martha's parting sentence; and then our wonder as to whether Martin was going to town, or what, was cut short by his rising, looking at his watch, and saying in the most matter-of-fact way to Lavinia: "Is your bag ready? You know we leave in an hour."

"Does Lucy expect you?" I ventured to ask.

"Oh no, I shall not trouble her until the day appointed. We shall go to the Manhattan, I think."

"How about your cousin Lydia?" asked father, who could not resist a chance to tease.

"I forgot all about her!" exclaimed poor Lavinia, clasping her hands tragically and looking really conscience-stricken. "And I," said Evan, who had suddenly jumped up and rammed his hand into his side pocket, "forgot to post your letter to her!"

October 31. We have all been to New York to visit the runaway Cortrights, as Evan calls them, now that they are settled, and it is pleasant to see that so much belated happiness is possible. The fate of Lavinia's house is definitely arranged; they will remain in "Greenwich Village," in spite of all advice to move up in town. The defunct back yard is being covered by an extension that will give Martin a fine library, with a side window and a scrap of balcony, while the ailanthus tree is left, that bob-tailed Josephus may not be deprived of the feline pleasures of the street or his original way of reaching it over the side fence; and the flower garden that was, will be the foundation of a garden of books under the kindly doctrine of compensation.

Above is to be a large guest room for Sylvia and Horace, or Evan and me, so that there will be room in plenty when by and by we bring the boys to see our New York.

Mrs. Jenks-Smith, who has formed a sincere attachment to Lavinia Cortright, did all in her power to persuade her to be her neighbor up in town, offering a charming house at a bargain and many advantages. Finally becoming piqued at the refusal, she said—

"Why will you be so stupid? Don't you know that this out-of-the-way street is in the social desert?"

"It may be in a desert, as you say," said Lavinia, gently, "but we mean at least to make it an oasis for our friends who are weary of the whirling of the pool."

We stood looking at the boys as they slept to-night. Strange thoughts will crop up at times most unexpectedly. Horns blowing on the highway proclaimed the late arrival of a coaching party at the Bluffs. "Would you like to have money if you could, and go about the world when and where you please?" I asked Evan, but he, shaking his head, drew me towards him, answering my question with another—

"Would you, or why do you ask?" I never thought that Mrs. Jenks-Smith's stricture would turn to a prayer upon my lips, but before I knew it I whispered, "God keep us comfortably poor."

Then Ian, feeling our presence, raised himself in sleepy leisure, and nestling his cheek against my dress said, "Barbara, please give Ian a drink of water."

THE END.

Dr. Maria Montessori

Questions and Answers.

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

Miscellaneous.

A Roarer.

Under Rule 46, which I enclose, would a horse affected in the wind (a roarer) be entitled to compete? Could he be called sound? R. H. L.

Ans.—Roaring is not an affection of the wind, it is caused by a shortening of the muscles of the larynx. An animal of this kind, or one with broken wind or heaves, would likely be thrown out by the veterinarian examining as unsound.

Distribution of Estate.

1. Have the executors of a will twelve months to wind up the estate? 2. Can they be sued by creditors, if any, before that time? Ontario. A SUBSCRIBER.

Ans.—1. Yes, as to legatees. 2. They are commonly allowed a year as to creditors also; but circumstances may be such as to warrant their taking legal proceedings before the expiration of that period.

Roadside Hedge.

Can a Township Council compel a farmer to remove or trim a tall thorn hedge that causes the public road to be obstructed by snow every winter, and who refuses to allow the Council to put up a good, lawful, wire fence in place of the hedge, and will not allow the public to drive through his fields without pay for same? A COUNCILLOR. Ontario.

Ans.—Yes. Ample provision for such cases is made by The Snow Fences Act, Ontario Statutes, 1912, Chapter 52.

Wife's Property Rights.

1. A young couple being Canadians (British subjects), wishing to enter into a contract of marriage, being married in New York State, having no intention of residing there, return to Canada. Have lived as man and wife, accumulated some real-estate, now journeying the autumn of life. In the event of a death, has this woman the same rights as she would have, had the marriage been solemnized in the Province of Quebec by a clergyman? If not, what rights has she? 2. A young couple about to marry. The prospective groom, wishing to make a marriage contract for two thousand dollars on the "bride elect," not having any property now, would this contract hold good, in the event of them accumulating property after marriage? Quebec. B. E. J.

Ans.—1. Yes. 2. Yes.

They were speaking of how easy it is to raise a question of doubt in the human mind, when Senator Thornton, of Louisiana, recalled the skepticism of little Jimmy.

Little Jimmy, the Senator explained, was one of the glad some youngsters in a Louisiana school. During the exercises recently, the teacher told the school the story of the Roman who swam across the Tiber three times before breakfast. "Three times!" involuntarily said the wondering Jimmy. "Did you say three times, Miss Mary?" "Why, yes, Jimmy," responded the teacher. "You don't doubt that a trained swimmer could do it, do you?" "No, ma'am," was the smiling reply of Jimmy. "I just wondered why he didn't make it four, and get back to the side where he left his clothes."

ASK PAPA.

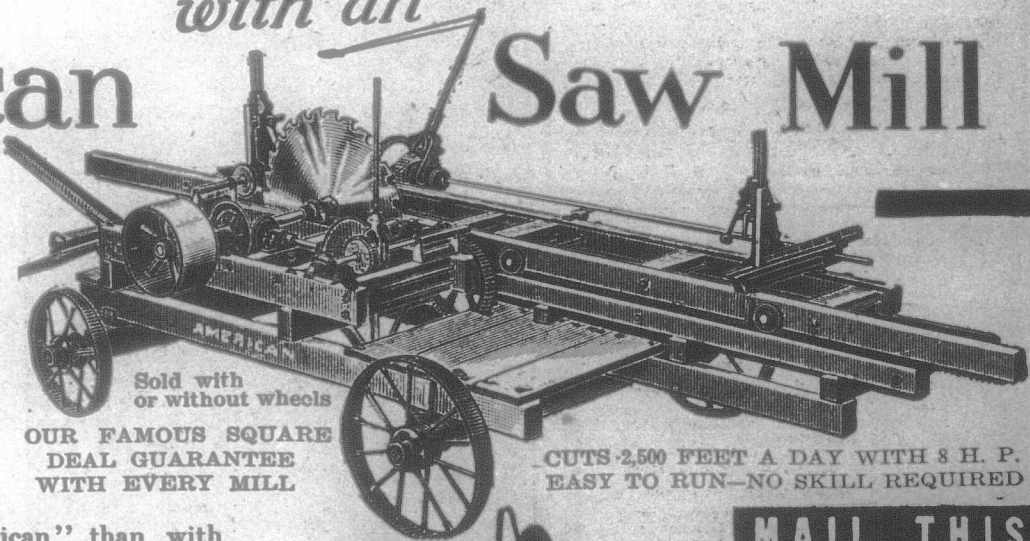
Mother—Now, go kiss nurse good night, and let her put you to bed. Little Helen—Don't want to. She slaps folks that try to kiss her now. Mother—Why, what a story, Helen! Helen—Well, you ask papa if she don't.

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Advertisement for 'Nine Lives' Electric Flashlight. Describes it as a bright, powerful light that is compact and safe. Price is \$1.00 by mail, prepaid.

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NOTICE TO HORSE IMPORTERS
GERALD POWELL,
 Commission Agent and Interpreter,
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 Will meet Importers at any port in France or Belgium and assist them to buy Percherons, Belgians, French Coach horses. All information about shipping, banking, and pedigrees. Many years experience; best references; Correspondence solicited. P.S.—Nogent is in the heart of the Perche horse district.

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Questions and Answers.
 Miscellaneous.

Building Silo.
 Please let me know, through the columns of your valuable paper, which is the better way to build a stave silo, round, or an octagon-shaped silo, either of which will be placed in corner of barn?
 A SUBSCRIBER.

Ans.—The round silo is to be preferred.
A Sow Query.
 I have a valuable registered sow eight months old which will not breed. She appears to come in heat regularly, but will not allow service. Is there anything I can give her to remedy this condition? Her feed has been mostly oat chop, shorts, and mangolds, and she has had fair exercise. She is quiet and gentle at any other time.
 A SUBSCRIBER.

Ans.—As she comes in heat regularly, it might be advisable to force service. Put her in a breeding crate, or use some such device.

Penalty for Non-payment of Taxes.
 Our township has added 3 per cent. to all taxes unpaid after December 15; 4 per cent. during February; 5 per cent. during March and April.

1. I do not object to the system, but have they the power to add such excessive interest?
 2. Is there no law against usury in Ontario?
- Ans.—**1. Yes.
 2. Yes; but "The Assessment Act" (Ontario Statutes, 1904, Chap. 23, Sec. 102 (2), (3),) provides for such percentages up to 5 per cent. on any installment of taxes, or on the aggregate amount of taxes, also that the additional charge may be on the basis of a sliding scale corresponding with the length of time default is made, but so as not, in the aggregate, to exceed the 5 per cent.

A Son's Wages.
 If a son works at home for a number of years after he becomes of age, and the father dies without a will, can he collect wages, or will he just share the same as the rest of the family?
 Ontario.
 A SUBSCRIBER.

Ans.—The legal presumption is that wages were not intended to be paid or exacted, and consequently the son could not collect same; but this presumption may be rebutted either by proof of an express agreement for payment of wages, or of circumstances from which it may reasonably be inferred that there was an intention on the part of both father and son that he should receive wages for his services. The burden of proof, however, is upon the son, and his own testimony must be corroborated in order to be admitted in court as evidence.

School Matters.
 This school has been closed four years on account of families moving out of the school section. There are still five settlers here, but no children to go to school.

1. Can a woman legally be treasurer of the school district in the Province of Ontario, when there are men capable of that office?
 2. Can the business be legally carried on by two parties when there are five living in the district?
 3. Can the school money be legally put in the bank in the names of the district clerk and treasurer, and the interest be drawn for their own benefit, while drawing a salary for keeping the books?
 4. What is the extent of money to be carried in the treasury when there is no school in the district?
 5. Can the clerk take the furniture from the school and use it in his own home, such as the desk, clock, etc.?
 6. Can the clerk be trustee and clerk also, when there are other capable men in the district?
 7. Can they refuse to take a man as trustee who has a family living in the district?
 8. What steps should be taken to get the books into other hands?
- Ontario.
 W. C. S.
Ans.—1. Yes.
 2. No.
 3. No.
 4, 6, 7 and 8. Consult the Inspector.
 5. It would be irregular.

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 is a decided economy, besides being the best stock conditioner on the market.
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 Send us a list of just what you want, and get our lowest price on the entire outfit.
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For Sale Two Imp. Clydesdale Stallions. Silver Strand, 9-year-old and Baillie animals and must be sold as I have sold my farm and going out of business. Address, James Paton, Proton Station, R. M. D. No. 1, Ont.

Please mention "The Farmer's Advocate."

Questions and Answers. Veterinary.

Digestive Trouble.

Pigs were born late in September. They are fed oil cake, gluten meal, milk, dry oats, and corn. Two of them stagger when they walk, and suddenly fall headlong. They do not fail in flesh. One died after five days' illness. The day before it died I tried to give it some medicine, but could not open its mouth. Is it contagious? **E. G. W.**

Ans.—This is digestive trouble that affects the brain. It is not contagious. Purge each with 3 ounces Epsom salts, and follow up with 4 grains nux vomica three times daily. Get all grain chopped, and sift the hulls out of the oat chop. Feed lightly on grain. Give milk, shorts, a little chop, and raw roots, and see that they get regular exercise. **V.**

Parturient Paresis.

Cow calved Saturday morning. Sunday night she would not eat or drink, and gave little milk. Monday morning she could not get up. We tried to lift her with ropes, but failed. I gave her pepper and ginger, and a pint of raw oil. She died about 11 o'clock. **A. D. N.**

Ans.—This was a case of parturient paresis, commonly called milk fever. If you had sent for a veterinarian, he would have inflated the udder with oxygen or sterilized air, with an apparatus especially designed for the purpose, and this would have effected a cure. In these cases the cow loses the power of swallowing, and part of the fluid you gave her no doubt passed down the windpipe to the lungs and hastened death. Cows in this state should not be given anything in the mouth. **V.**

Miscellaneous.

Stopping Growth of Horns.

What is used for killing horns on calves, in what quantity used, and at what age should the calves' horns be treated? **FARMER.**

Ans.—Use caustic potash. Rub a little on the scars before the calf is two weeks old. It may be purchased in the form of a stick or pencil.

Hens Eating Eggs.

What can be done to prevent hens from eating eggs? I was troubled all last summer, and now, when I have them shut in, they are eating them again. **D. S. H.**

Ans.—Clipping about one-eighth of an inch off the end of the bill has been recommended, and raising the nests off the floor so that the eggs would not be seen. It would also be well to separate the offenders from the rest of the flock. A correspondent advises as follows: "If you feed a handful of flour of sulphur to a two-quart measure of chopped oats and barley, wet with skim milk or butter-milk, just so as to make it thick, and if you feed the sulphur for four or five days, then stop a while and repeat at intervals. I think it will have the desired results."

Right of Watering Place.

About twenty-five years ago A granted to B the right of a watering-place on his property. About twelve years ago, A died, C coming into possession and remaining three years. Since then D has had possession, B having undisputed use of watering-place until now, but not making continuous use of it, and not keeping fence in repair this last two years. No money was paid between A and B.

1. Has B any right now?
2. If not, why not?

Ontario. **J. H. R.**

Ans.—We cannot give definite answers to your questions without more information than is contained in your statement of facts. For instance, there is reference to a grant of the easement in question, but it is not stated how the grant was made, whether by deed or otherwise; and there is the suggestion that there was a condition attached to it, namely, that the grantee should keep a fence in repair. And there are other matters important to be considered, and as to which the statement contains no information. We think it likely that B is still entitled to enjoy the water privilege in question, but for the reason above mentioned we cannot speak definitely.

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Aberdeen-Angus of Show Form and Quality. For this season my offering in young bulls and heifers, are toppers every one. Show-ring form and quality and bred from show-winners. T. B. BROADFOOT, Fergus, Ont. G. T. R. and C. P. R.

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Please mention "The Farmer's Advocate."

Questions and Answers. Veterinary.

Partial Paralysis.

My sheep grind their teeth, shake their heads, eat little, and cannot walk well. They seem to be weak on their legs.

M. Z.

Ans.—This is partial paralysis. It is probably due to digestive derangement. Purge each with 6 ounces Epsom salts and 1/2 ounce ginger. Follow up with 8 grains nux vomica three times daily. Feed on good clover hay, whole oats, and raw roots. V.

Itchy Tail—Worms.

1. Weanling colt backs up against the side of the stall and rubs the root of his tail.

2. Mare passes worms about five inches long, with one end black and the rest white. H. M.

Ans.—1. Make a solution of corrosive sublimate 40 grains to a quart of water. Heat this to about 100 degrees Fahr., and rub well into the skin of the tail once every second day until itchy ceases.

2. Take 3 ounces each of sulphate of iron, sulphate of copper, and tartar emetic. Mix, and make into 24 powders. Give her a powder every night and morning. After the last has been taken, give her a purgative of 8 drams aloes and 2 drams ginger. V.

Skin Disease.

Last fall my mare became itchy and rubbed mane and tail. Later the trouble extended to ears, face, neck, withers, etc. The hair came out in patches. She rubs herself whenever she gets a chance. F. T. R.

Ans.—This is either eczema or lice. It will be wise to clip her, but of course, you will have to be very careful to keep her comfortable and well clothed, or else do not clip until spring. Make a solution of corrosive sublimate 30 grains to a quart of water. Heat this to about 100 degrees Fahr., and rub her well with it once every third day until itchy ceases. Clothe warmly, and tie so that she cannot lick herself after rubbing until she is thoroughly dry. Give her 1 1/2 ounces Fowler's Solution of Arsenic twice daily for a week. V.

Tuberculosis.

About three months ago one of my cows began to fail and had a nasty, dry cough. Fearing tuberculosis, I had my veterinarian test the herd. The suspected cow did not react, but all the rest except one reacted. With the one exception, all are in good condition, and apparently perfectly healthy.

1. Is their milk fit to send to a cheese factory?
2. Would it be wise to allow them to raise calves?
3. Is it possible that the cows that did not react are diseased?
4. Might not some that did react be all right?
5. Will it be necessary to slaughter those apparently healthy?

W. M. McL.

Ans.—1. No.
2. No. But if the calves are not allowed to nurse the dams at all, but removed from the herd and raised on milk from healthy cows, it is highly probable they will remain healthy.

3. This is possible, especially in the suspected one. When the disease has reached that stage of development in which some vital organ or organs are sufficiently diseased to interfere with their functions and cause loss of flesh, etc., and especially if the temperature be above normal before the injection of the tuberculin, there is often no reaction. It is even possible that the test may not give a reaction in an apparently healthy animal that is diseased, but this very seldom occurs.

4. We think not. Our experience has taught us that when the test is properly conducted it will not condemn a healthy animal.

5. Slaughter is not compulsory. A man must act according to his own judgment. A tubercular cow that is apparently healthy, is probably as dangerous as one in which the disease causes clinical symptoms. As the herd, with the exception of one (we think the suspected cow is diseased) is all diseased, we certainly consider it would be unwise to keep it for dairy purposes, and few would buy the animals for beef. V.

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"A PLENTY." I have a wide range for selection in Shorthorn bulls and heifers, in pure Scotch or Scotch topped, beef bred and beef type. Dairy bred and dairy type; make a point to visit my herd at Markdale, Ontario.

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Glenallan Shorthorns We have some of the best young bulls we ever bred, Scotch or Booth breeding, low thick mellow fellows of high quality. also some heifers. Glenallan Farm, Allandale, Ontario. R. MOORE, Manager.

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SHORTHORNS Our present offering consists of Nonpareil Imp = 87184 = Dam Imp. Dalmeny Nonpareil, 6th. 7 young bulls from 6 to 12 months old. 15 cows and heifers of choicest quality and breeding. A. J. HOWDEN & CO., COLUMBUS, ONTARIO Long-distance phone. Myrtle C.P.R. and G.T.R.

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5 head from 10 to 18 months, bred from cows which are from imported dams and sired by choicely bred bulls, prices are not high as I need the space for stabling cattle.

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We have for sale, Scotch and English-bred Shorthorns. A few bulls of improved breeding on big milking lines; also others pure Scotch, and heifers of both breed lines.

L.-D. Phone C. E. MORDEN & SON, OAKVILLE, ONTARIO

SHORTHORNS of breeding, style and quality. If in want of an extra choice herd header, carrying the best blood of the breed, or a limited number of right nice yearling heifers, write us; we can supply show material of either bulls or females. Geo. Gier & Son, Waldemar R. R. No. 1, Ont. L.-D. Phone.

MEADOW LAWN SHORTHORNS OF RICHEST AND MOST FASHIONABLE SCOTCH BREEDING, and of high-class type and condition. I can supply young bulls and heifers—Clarets, Roan Ladies, Mildreds, Stamfords, etc. L.-D.-Phone F. W. EWING, R. R. No. 1, BLORA, ONTARIO.

Dr. Maria Montessori

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Any person, however inexperienced, can readily cure either disease with **Fleming's Fistula and Poll Evil Cure**—even old cases that skilled doctors have abandoned. Easy and simple; no cutting; just a little attention every fifth day—and your money refunded if it ever fails. Cures most cases within thirty days, leaving the horse sound and smooth. All particulars given in Fleming's Vast-Pocket Veterinary Adviser. Write us for a free copy. Ninety-six pages, covering more than a hundred veterinary subjects. Durable bound, indexed and illustrated. **FLEMING BROS., Chemists, 75 Church Street, Toronto, Ont.**

EVERGREEN AVENUE STOCK FARM

SHORTHORNS. One Imp. Roan Lady bull for sale or exchange. Scottish Prince—60869—(93372) got by Sittytion Choice (84822) he by Collynie Champion (78608) Calved 10th of April, 1905, quiet and reliable. Also 1 good bull calf 12 months old. Also 1 3-year-old registered Clydesdale stallion.

GEO. R. A. MILLER,
Sunderland, R. R. No. Ontario Co., Ont.

Glengow Shorthorns

Five of the best bull calves ever in the herd, ranging from 9 months to 15 months. A "Kiblean Beauty" calf, a show proposition. A number of choice heifers, all ages. Write for prices.

WM. SMITH, Columbus, Ontario

Shorthorns

Fourteen good young bulls, from 6 to 12 months old, and a number of females. Would appreciate your enquiry for same.

E. CARGILL & SON, Cargill, Ontario

SHORTHORNS, COTSWOLDS, BERKSHIRES

For sale—A few Shorthorn females, a limited number of young Cotswold ewes and a number of Berkshires about three months.

CHAS. E. BONNYCASTLE
P. O. and Station Campbellford, Ontario

WOODHOLME SHORTHORNS

I have for sale a most attractive offering in young bulls and young females, pure Scotch, breeding unsurpassed, the low thick kind. Write me your wants. **G. M. FORSYTH** North Claremont Ont.

"OAKLAND"

47 SHORTHORNS

Bulls and females of No. 1 quality. Present offering is three grand bulls, 11, 15 and 20 months respectively. Also a few females of milk strain. Visitors say they find things as represented.

JNO. ELDER & SON, HENSALL, ONTARIO

Spring Valley Shorthorns

A few of the best young bull prospects we ever had. They will please you. Will sell females too. Visit the herd; we think we can suit you. Particulars on application. **KYLE BROS.,** R. R. No. 1, Drumbo, Ont. Telephone, Ayr

Shorthorns For Sale

2 yearling bulls of the right kind, 2 high-class herd headers, 12 months, one from imp. cow, 4 bull calves, also young cows and heifers, some good milking strains.

Stewart M. Graham, Lindsay, Ont.

1854 MAPLE LODGE STOCK FARM 1914

Shorthorns and Leicester
I have a most excellent lot of young rams for sale, mostly sired by imported Connaught Royal. Something very choice in young bulls. House one mile from Lucan Crossing G. T. Ry.

A. W. SMITH, MAPLE LODGE, ONTARIO

SHORTHORNS FOR SALE

I have two extra roan bulls; fourteen and fifteen months old, one from Imp. dam. Also some heifers, all bred in the purple. Phone or write. **Hugh Thomson, Box 556, St. Mary's, Ont.**

Dunganon Ayrshires

For high-class Ayrshires, write us or come and see them. We can sell matured cows, heifers, heifer calves, all bull calves are sold. Prices right. **L. D. Phone.** **W. H. FURBER, COBOURG, ONT.**

High-class Ayrshires

If you are wanting a richly bred young bull out of a 50-lbs-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.

Gossip.

The Secretary of the Canadian Jersey Cattle Club writes us that at the annual meeting of that Club, on Wednesday, February 4th, much very important business will be undertaken. There will be a vote on the proposed increased scale of fees for annual membership, and for registration. There will also be discussion regarding the negotiations which have been proceeding between the Secretary and the Committee of the American Jersey Cattle Club on reciprocal relations. The Club is in the healthiest state as regards finances, number of members, and increase in registration, than it has ever been. It is very important for every Jersey man to be at this meeting.

HULET'S CHAMPION HOLSTEINS TO BE SOLD.

It is not necessary in this short review to enumerate the marvelous showing winnings of this herd, all interested in the great Holstein breed know it well. A card addressed to A. E. Hulet, Norwich, Ont., will bring a catalogue giving every desired information. The herd of fifty head will be sold without the slightest reserve, forty females and ten bulls, senior and junior champions, male and female, first-prize aged, junior, graded, and breeders' herds, first-prize progeny group the get of one sire and the produce of one cow, positively the highest-class lot of cattle ever offered in the history of Holstein cattle in Canada, and in the matter of producing ability their records range from 17 lbs. for two-year-old heifers, 22 lbs. for three-year-olds, to 25 lbs. for adult cows, and to-day, in the heart of the strongest Holstein center in Canada, Mr. Hulet is daily shipping more milk from Norwich Station than any one of the dozens that ship at that point. Every animal is in the pink of condition, and every animal is a regular and consistent breeder; that is, those of breeding age. There are absolutely no culls in the herd. It is an opportunity for the public of an importance never before equalled, and probably will never be equalled again. All the morning trains will be met at Norwich from the four directions, St. Thomas, Simcoe, Brantford, and Woodstock, or for parties arriving the day before there is splendid hotel accommodation at Norwich, and the farm is only a little over a mile out.

THE BREAD LINE.

(By Berton Braley, in Toronto News.)
Well, here they are—they stand and stamp and shiver,
Waiting their food from some kind stranger hand,
Their weary limbs with eagerness aquiver,
Hungry and heartsick in a bounteous land.

Yes, here they are—with gaunt and pallid faces,
With limbs ill-clad and fingers stiff and blue,
Shuffling and stamping on their pavement places,
Waiting and watching for their bit of food.

We boast of vast achievements and of power,
Of human progress knowing no defeat,
Of strange new marvels every day and hour—
And here's the bread line in the wintry street!

Ten thousand years of war and peace and glory,
Of hope and work and deeds and golden schemes,
Of mighty voices raised in song and story,
Of huge inventions and of splendid dreams.

Ten thousand years replete with every wonder,
Of empires risen and of empires dead,
Yet still, while wasters roll in swollen plunder,
These broken men must stand in line—for bread.

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Thousands In Use giving splendid satisfaction justifies your investigating our wonderful offer to furnish a brand new, well made, easy running, easily cleaned, perfect skimming separator for only \$15.95. Skims one quart of milk a minute, warm or cold. Makes thick or thin cream. Different from this picture, which illustrates our low priced large capacity machines. The bowl is a sanitary marvel and embodies all our latest improvements.

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BERLIN, CANADA

Shorthorns & Clydesdales

We have seven yearling bulls and seven bull calves from 7 to 12 months. All reds and roans, and of choice breeding. We have some extra good imported mares for sale, also some foals. If interested write for catalogue of their breeding.

W. G. PETTIT & SONS, FREEMAN, ONTARIO
Burlington Junction, G. T. R. Bell 'Phone

100 SHORTHORNS IN OUR HERD 100

For sale—Imported yearling show bull; 14 calves 8 to 14 months old; cows and heifers and show material all ages. Herd headed by 3 high-class imported bulls, all 3 were prizewinners at Toronto this year.

Farm 1/2 mile from Burlington Junction. **MITCHELL BROS., Burlington, Ont.**

Salem Shorthorns

—As ever in the front rank. Special offering: Ten young bulls, quality and price to suit any buyer.

J. A. WATT, Elora, Ont.

Ayrshires & Yorkshires

—Bulls for service of different ages; females all ages. Calves of both sexes. All bred for production and type. A few pigs of either sex ready to ship.

ALEX HUME & COMPANY, CAMPBELLFORD, R. R. No. 3.

P. D. McARTHUR'S AYRSHIRES

In official record, high testing Ayrshires, that have won scores of prizes, I can surely supply your wants, over 50 to select from. Young bulls of superb breeding on record; producing lines. Also the 3-year-old stock bull, Imp. Whitehall Freetrader.

P. D. McARTHUR :: :: **NORTH GEORGETOWN, QUE.**

THE SALE OF THE SEASON

The Third Annual Sale of the SOUTHERN ONTARIO CONSIGNMENT SALE CO., will be held in Cook's Sale Stable, Tillsonburg, Ont., on **Tuesday, Feb. 10th, 1914**

We will sell 75 head of choice

HOLSTEINS

Most of them in calf to the best bulls in Canada. Every animal offered will be sold subject to tuberculin test, and also subject to inspection. Everything guaranteed as represented on day of sale. Cattle may be seen at the stable the day before sale, and the consignors will be at the Royal Hotel, where they will be pleased to meet you.

MOORE & DEAN, Auctioneers
CATALOGUES ON APPLICATION TO **R. J. KELLY Tillsonburg, Ont.**

Holstein-Friesians

—Bulls ready for service. Prices from \$75 to \$150, according to dam's record. A few fine bull calves also. Prices \$25 to \$75. One with dam's record, 16.46 butter at two years.

D. B. TRACY, Cobourg, Ont.

HOLSTEINS

Registered Pure Bred, Male and Female Stock for sale. Have two choice Bull Calves, sired by 30 lb. Bull. Dams, 16.48 and 19.12 butter in 7 days. Price \$75.00, and take your pick. Also one from 25 lb. Son of Homestead Girl DeKok Sarcastic Lad. Dam 20 lb. 4-year-old. Price \$65.00.

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Sixty Thousand trappers now send us their Raw Furs. Why not you? We pay highest prices and express charges, charge no commission and send money same day goods are received. Millions of dollars are paid trappers each year. Deal with a reliable house. We are the largest in our line in Canada.

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Drop us a post card today for our catalogue of Horse Goods containing Harness, Harness Parts and Hardware, Blankets, Saddles and Veterinary Goods. Free for the asking.
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Size	Price doz.	Fifty tags
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No postage or duty to pay. Cattle sizes with name and address and numbers; sheep or hog size, name and numbers. Get your neighbours to order with you and get better rate. Circular and sample mailed free.
F. G. JAMES, Bowmanville, Ontario

HERD SIRE FOR SALE

Pietertje Mercedes Wayne, born June 15th, 1910, No. 9930. Son of Count Calamity Mercedes, sire of the first Canadian Bred two-year-old to produce 20 lbs. butter in seven days. Dam Lady Wayne Norine, whose sons have sired: Queen Butter Baroness, 33.18 lbs.; Calamity Wayne Pauline, 30.25 lbs.; Fernale Maid, 20,000 lbs. milk one year; 10 others with records from 20 to 26 lbs. Lady Wayne Norine is granddam of more high record cows than any cow in Canada. Bull is large, mostly white and leaves good stock. For quick sale, will be priced right.
WM. A. RIFE :: :: HESPELER, ONT.

WILLOWDALE STOCK FARM Holsteins & Clydesdales

For Sale: A pair of choice Holstein cows, 6 and 7 years of age, just fresh. This pair won 3rd and 4th in dry class at Toronto National Dairy Show; also some other good cows soon to freshen and some yearling heifers. Write for prices and breeding.
EDGAR DENNIS Newmarket, Ontario

The Maples Holstein Herd
Headed by Prince Aaggie Mechthilde. Present offering: Bull calves born after Sept. 1st, 1913. All sired by Prince Aaggie Mechthilde and from Record of Merit dams. Prices reasonable.
WALBURN RIVERS,
R. R. No. 5, Ingersoll, Ontario

For Sale—Reg. Holsteins—A few choice young cows, due to calve March and May; also three yearling heifers from officially tested stock.
W. A. BRYANT, Strathroy, Ont. R. R. No. 3.

Glenwood Stock Farm
HOLSTEINS
8 yearling bulls for sale, out of big milking strains; at low figure for quick sale. Thos. B. Carlaw & Son, Warkworth, Ont. Campbellford Station.

DON JERSEY HERD Offers young bulls and heifers for sale; heifers bred to Eminent Royal Fern. D. DUNCAN, DON, ONTARIO
Phone L.-D. Agincourt. Duncan Str. C. N. R.
Please mention "The Farmer's Advocate."

Gossip.

SHIRES AND CLYDESDALES OF THE HIGHEST QUALITY.

Dr. D. McEachran, of Ormstown, Que., whose fame as one of the most expert judges and one of the most reliable authorities of draft horses living in this age, is not confined to this side of the line, nor to this side of the Atlantic, would almost seem to have entered into a solemn compact with himself to the effect that each succeeding year's importation in breed characteristics, draft conformation, perfection of underpinning, solidity of color and royal breeding, must outclass all former shipments, for certain it is that, while the representative of this paper has many times in former years been privileged with an inspection of the many high-class horses imported by Dr. McEachran, we are free to confess that seldom, or never, have we seen so choice a lot of the cream of both the Shire and Clydesdale types of the breeds in any one stable anywhere than those in the Doctor's stable at the present time, and imported by him the past fall. An enumeration of the entire lot of upwards of forty is a task we could not attempt, but those we shall mention can be taken as representative of the entire lot, particular stress, however, being laid on the superior type, from a Canadian's ideal, of the Shires. Bramhope Freebooter 1097 is a bay yearling Shire stallion, sired by Cosby Alb. t. dam by Lord Byron of Batsford. This is an exceptionally choice colt, very large, and splendidly balanced, and his underpinning is faultless. He is one of the best Shire colts ever imported. A close second for big size, comeliness, and good ground work, is the bay yearling stallion, Bramhope Advocate 1098, by Rickford Coming King, dam by Red Lynch Forest King. They are a great pair of colts, and a decided acquisition to the draft breeding stock of Canada. Prominent among the Shire mares and fillies is the unbeaten two-year-old, Old Hough Carrie 972, a show filly of a high order, big, smooth, and particularly good at the ground, sired by Raithby Tom, dam by Southgate Honest Tom. Another good Shire filly with exceptional quality of underpinning, and up to a big size, is the bay three-year-old, Crumleigh Princess 969, by Lynn Collin, dam by Ercall Ladd. This is one of the best Shire fillies in the country. Another remarkably well-bred one, and with great size, is the bay two-year-old, Bramhope Victoria 970, by the unbeaten four-year champion of England, Gaer Conqueror, dam by Prospect Prince Albert, granddam by Dunsmore Masterman. With these illustrious sires, and four numbered dams, she is a most desirable brood mare. In Clyde stallions there is the big, drafty, bay three-year-old, Sir Hercules 15265, by the renowned champion Everlasting, dam by the noted breeding horse, Star of Cowal, granddam by the great Baron's Pride. He is one of the big kind so much needed in Canada, with strong, flat bone and well-sloped pasterns, and has five numbered dams. Another very sweet-turned horse of superb style, is the brown six-year-old, Favorite Tom, a son of the famous Baron of Buchlyvie, dam by the great sire, Royal Favorite, granddam by Master Robin. Several others imported and imported in dam, of younger age, make a big and high-class selection for intending purchasers. Of the twenty-odd mares and fillies of high-class breeding and individuality, we have only space to mention one or two. Countess of Afton is a big mare of the nicest kind of quality, a bay, ten years of age, one of the great show mares of last year's importation, got by the champion, Marmion, dam by Baron's Pride, granddam by Macgregor, and great-granddam by Lord Erskine. Royal breeding, and a royal mare. Another high-class show filly, one with superb quality, style and action, is the brown two-year-old, Hawthorn Belle 31701, by the Royal and Highland first-prize horse, Silver Cup, dam by Montrave Rocket. It matters not what a man's taste, whether for extreme size or extreme quality, or a happy combination of both, he can get his wants supplied in the McEachran stables, and all of them under the skillful attention of T. Hamilton, of Kent, England, are in nice condition.

Grand Dispersion Sale

EVERGREEN STOCK FARM PURE-BRED
HOLSTEINS

Forty Females and Ten Males

At the farm, NORWICH, ONT.

Wednesday, Feb. 11th, 1914

SALE WILL COMMENCE AT ONE O'CLOCK P.M.

This is the first time in the history of Holsteins in Canada that a prizewinning herd such as we have was ever offered at public auction. This herd in 1913 won nearly \$1,500 in cash prizes, besides two gold medals and several diplomas. Every animal in the herd is a good individual. Every cow is a first-class producer and a regular breeder. We haven't done much testing, but we have cows with 7-day records up to 25 lbs. butter, 3-year-olds up to 22½ lbs., and 2-year-olds up to 17 lbs. The cattle, without a single exception, are all in a healthy, thrifty condition and are sure to make good.

Among the lot are: One yearling heifer (bred), and two bulls nearly ready for service, sired by a son of the new Canadian champion cow, May Echo Sylvia (over 34 lbs. butter 7 days); two daughters, two granddaughters and three grandsons of Madame Posch Pauline, 101.3 lbs. milk one day, 660 lbs. seven days and 2,752 lbs. in 30 days; 26.74 lbs. butter seven days, 108.45 lbs. 30 days, at 4 years of age; six daughters and four sons of Prince Abbekerk Mercena, grand champion bull at Toronto and Ottawa, 1913.

Don't miss this sale, you may never have another opportunity of securing your choice of so many good Holsteins. Everything offered will be sold to the highest bidder.

COL. WELBY ALMAS, Brantford, Ont. } Auctioneers.
MAJOR E. R. ALMAS, Norwich, Ont. } JOHN MAKER
Norwich, Ont., Sec. of Sale

CATALOGUES FROM

A. E. HULET Norwich, Ontario

Royalton Stock Farm Holsteins

A number of cows and heifers for sale, bred to Royalton Korndyke Major (Imp.) 12937, whose dam gave 111.1 lbs. milk in one day. Am booking orders for bull calves from above bull at \$25 up, according to age and dam. All bulls of serviceable age sold.

E. C. GILBERT, ST. THOMAS, ONT.

Telephone connection

R. R. No. 1

Fairview Farms Herd

Offers for sale: A son of Rag Apple Korndyke 8th out of a daughter of Pontiac Korndyke with a record of 27.72 lbs. in 7 days, averaging 4¼% fat. Grand dam has a record of 29 lbs. Calf is nearly ready for service. Write me for description and breeding.

E. H. DOLLAR, HEUVELTON, N. Y. (near Prescott, Ont)

HOLSTEIN CATTLE

The Buyer's Opportunity

We have more Cattle than we can stable. Some of the finest young bulls and heifers we ever offered; their breeding and quality is the very choicest, they will be sold worth the money. Don't wait to write, but come and see them.

D. C. FLATT & SON, R. R. No. 2, Hamilton, Ont. Long Distance Phone 247

Riverside Holsteins
Herd head by King Johanna Pontiac Korndyke whose near dams and sisters, 12 in all, average 23.77 lbs. butter in 7 days. His sister, Pontiac Lady Korndyke, has a record of 38.02 lbs. butter in 7 days 156.92 lbs. in 30 days—world's records when made. We are offering several females bred to this bull also a few bull calves.
J. W. RICHARDSON,
R. R. NO. 2, Caledonia, Ont.

HOLSTEINS—I can supply a limited number of high-producing and highly-bred bulls, bred on both sides from high official backing. Let me know your wants.
W. E. THOMPSON, R. R. No. 7, Woodstock, Ont. L.-D. 'Phone.

HOLSTEINS
For quick sale a number of extra choice bull calves from eight to fifteen months of age, sired by Sir Inka Posch Netherland 10289 and out of R. O. M. and R. O. P. dams. Prices reasonable.
W. T. WHALE & SONS, GOLDSTONE, ONTARIO

BEAVER CREEK HOLSTEINS AND PERCHERONS
When wanting some right nice Holsteins of any age, workers and bred from workers, also young bulls, write me. One four-year-old and one yearling. Percheron stallions for sale; also Buff Orpington cockerels and pullets.
A. MITTFELDLT, Elcho P. O. Smithville Station.

Brampton Jerseys
We are doing the largest business we ever did, chiefly with our old customers; young bulls and heifers from several tested daughters. Several imported cows and bulls for sale. Canada's Greatest Jersey Herd.
B. H. Bull & Son, Brampton, Ont.

Dr. Maria Montessori

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

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

Fleming's Vest-Pocket Veterinary Adviser describes and illustrates all kinds of blemishes, and gives you the information you want to have before ordering or buying any kind of a remedy. Mailed free if you write.

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HALLMAN FUR CO., Toronto Ontario
N. Hallman, Manager, 4 years with John Hallman; E. J. Hagen, Trapper, 11 years with John Hallman; J. L. Jewell, Buyer, 5 years with John Hallman; G. Hagen, Secy., 7 years with John Hallman.

FARNHAM OXFORDS & HAMPSHIRE

Oldest established flock in America. Our present offering is a few superior Oxford ewe lambs and ram lambs.

HENRY ARKELL & SON, Arkell, Ont.

Alloway Lodge Stock Farm

Aberdeen Angus Cattle
Southdown Sheep
Collie Dogs

A few heifers and young cows in calf to the Chicago winning herd bull. For sale as well as some very strong young bulls. Four very promising puppies from imported stock are also offered.

ROBT. McEWEN, Byron, Ont., Near London

Oxford Down Sheep

Shorthorn Cattle, Yorkshire Hogs—Present offering: Lambs of either sex. For prices, etc., write to John Cousins & Sons, Buono Vista Farm, Harristown, Ont.

HILTON STOCK FARM

We are sold out of Tamworths, also females in Holsteins, but still have some choice bulls for sale, from two to six months, officially backed and right good ones.

R. O. MORROW & SON, Hilton, Ontario Brighton Sta. Phone.

Pine Grove Yorkshires

Bred from prize-winning stock of England and Canada. Have a choice lot of young pigs of both sexes, pairs akin, to offer at reasonable prices. Guaranteed satisfaction. **Joseph Featherston & Son, Streetsville, Ont.**

Poland-China Swine for sale from the champions of Canada; also Shortorns of either sex. Prices right.

Essex Co. Geo. Gould, Edgar's Mills, Ont.

Tamworths—Sows bred for spring farrow, \$50 each; Boars \$75 to \$80 Registered. Write for particulars.

JOHN W. TODD, CORINTH, ONTARIO R. R. No. 1.

Cloverdale Large English Berkshires

No matter what your needs in Berkshires may be—see Lang the live Berkshire man. He is always prepared to furnish anything in Berkshires. Write or come and inspect.

G. J. LANG, Hampton, Ont., Durham Co.

Please mention "The Farmer's Advocate."

How English Farmers Feed Horses.

We are getting to that period of the year when, in England, Scotland and Wales, chiefly, breeders of horses are rapidly preparing their stock for the London Spring Shows, those events at Islington which are jointly run by private enterprise and Governmental assistance. The latter is, nowadays, spreading to all breeds of horses and ponies, and excellent work is being done in securing an absolute certainty, the use of nothing else among farmers' mares but sound stallions, free from all disease.

The solicitude of the Board of Agriculture to-day is little less than remarkable, compared with what it was twenty years ago. The Minister of Agriculture—the Hon. Walter Runciman—is particularly keen upon the using of nothing but the best stallions, bulls, and boars, in England and Wales, and the same in Scotland, with the addition, there of rams. All the money necessary to ensure this comes out of the Development Fund, and, compared with other days, Mr. Runciman has only to wave the magician's wand and out roll the dollars. The Board is doing a lot of useful work in spreading the gospel of correct feeding. We don't have demonstration trains over here, but we do make the most of our fairs (shows) and other meeting places for the distribution of knowledge. Suitable rations for horses will always be a problem in which locality will play a part as much as anything, but the Board tells us that a heavy farm horse at ordinary work will require a ration supplying about 25 to 30 pounds total dry matter, with a starch equivalent of about 14 or 15 pounds, including about 1½ pounds digestible albuminoids. The following is probably the simplest example of a daily ration for a farm horse: 20 lbs. hay and 12 lbs. oats. As a rule, however, a simple diet like this is not the most serviceable. Occasional changes of food are advantageous. With a more complex diet, the animals will be found to thrive better, and in many cases the expense is reduced also.

A mixture of corn and beans in the proportion of 2½ of the former to 1 of the latter, gives about the same albuminoid ratio as oats, and it will be found that 15 pounds of the corn-beans mixture affords the equivalent amount of nourishment to 19 pounds of oats.

The following are examples of suitable daily rations for farm horses at average work:

Eighteen pounds hay; 8 pounds corn or partly barley; 2 pounds bran, and 1½ pounds beans.

Twelve pounds hay; 5 pounds oat straw; 6 pounds oats; 5 pounds corn, and 2 pounds beans.

Eighteen pounds hay; 8 pounds corn or 1½ pounds beans.

A full ration for a heavy horse at the busiest time of the year would be: 9 pounds oat straw; 6 pounds hay; 12 pounds oats; 3 pounds beans or peas, and 1½ pounds linseed.

Farm horses fed on oat straw and oats alone—a plan followed in many northern and western districts of England and Scotland during the short days of winter—require a very variable quantity of oats, depending upon the character of the straw, which in some localities has a high nutritive value, whilst in others its quality is very low. In any case, the oat straw is given ad libitum, and the quantity of oats required to supplement it will vary from 14 to 24 pounds, according to the quality of the straw, the quality of the oats, the size of the horse, and the character of the work to be done.

In feeding horses it is essential to remember that, compared with cattle the horse has only a very small stomach, which acts most efficiently when about two-thirds full. The horse is thus not well adapted for dealing with bulky food, and should receive its food at regular short intervals.

The ration of the working horse must hence contain a large proportion of concentrated foods, the most suitable being oats, barley, corn, beans, and peas. A ration composed exclusively of concentrated foods will not prove satisfactory, but must be blended with a certain amount of bulky food. This latter should consist of hay or good straw.

G. T. BURROWS, London, Eng.

Make Your Stock and Poultry Pay Better with ROYAL PURPLE

STOCK AND POULTRY SPECIFICS

At a cost of less than a cent a day per head of stock, it will increase their value 25 per cent. Permanently cures Colic, Debility, Worms, Bots and Skin Diseases. Tones up run-down animals so that they quickly gain weight and vigor. Increases the yield of milk cows three to five pounds a day, besides enriching the quality of the milk.

ROYAL PURPLE is not a food. It is a conditioner—the best ever so'd. If there was any better we would be making it. It enables your stock to eat the natural food they should eat and get the most benefit from it. Here is the advice of all thorough veterinary doctors—"Feed your stock on food of your own growing"—not pamper them with soft predigested mush so that after a time they cannot digest good, wholesome feed. Feed the good food grown on your own farm—hay, oats, bran, chop, etc. You know what these things cost you and what they will do.

ROYAL PURPLE is an aid to these natural foods and if you use it as directed, we can guarantee better results than if you feed any of the concoctions offered on the market as "prepared foods."

ROYAL PURPLE makes hens lay in winter as well as in summer, and keeps them free from disease? It does, and helps them over the moult, fattens and keeps them in vigorous health. A 50c package lasts 25 hens over 70 days. Shouldn't you try it? We have hundreds of recommendations from all parts of the country. If **ROYAL PURPLE** does not give you better results than anything you ever used, or give you satisfaction, we will refund your money. No matter what your opinion of other preparations, we want you to give **ROYAL PURPLE POULTRY SPECIFIC** a chance to show what it can do for your poultry—and a 50c package will show you some fine results. Sold in 25c and 50c packages and \$1.50 air-tight tins.

Try It On a Poor-Conditioned Animal

If there is a run-down, poorly nourished beast on your farm, see what **ROYAL PURPLE SPECIFIC** will do for it. A 50-cent package lasts a cow or horse 70 days. The cost is so trifling that no farmer in Canada has any excuse for having out-of-

WE ALSO SELL

- Royal Purple Cough Specific for cough and distemper. (Will cure any ordinary cough in four days). 50c, by mail 60c.
- Royal Purple Sweat Linctum for lameness, rheumatism, sprained tendons, etc. 50c, by mail 60c.
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- Royal Purple Disinfectant, in 25c, 50c and \$1.00 tins.
- Royal Purple Lice Killer for poultry and animals. 25c and 50c, by mail 30c and 60c.
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- Royal Purple Boup Specific for roup, pip, diphtheria, typhoid fever, canker, white diarrhoea, swelled head, etc., in poultry. 25c, by mail 30c.

Free TO STOCK AND POULTRY RAISERS

We will mail for the asking our new revised 80-page book on common ailments of stock and poultry. Tells how to feed light and heavy horses, colts, mares, cows, calves, steers, hogs; also how to feed and keep poultry so that they lay winter and summer. Cover lithographed in six colors, showing farm utility birds in their natural colors. This is a book that should be in every farmer's possession. IT'S FREE. Write for your copy today.

W. A. Jenkins Mfg. Co. London, Canada

Maple Villa Oxford Downs and Yorkshires

This fall I have the best lot of lambs I ever bred. I have plenty of show material, bred from the best stock procurable in England. Order early if you want the best. Ram lambs, shearlings and ewe lambs Yorkshires of all ages.

J. A. CERSWELL, Bond Head P.O., Ont.

Bradford or Beeton stations Long-distance phone

Special Offering of SHROPSHIRE EWES—40 imported shearing ewes and 40 home-bred shearing and two shear ewes. These ewes have been bred to choice imp. rams. One crop of lambs should nearly pay for them at prices asked. Also some good ewe lambs at a low price.

JOHN MILLER, Brougham, Ont. Claremont Stn. C.P.R., 3 miles. Pickering Stn. G.T.R., 7 miles.

ELMHURST LARGE ENGLISH BERKSHIRES

From our recent importation of sows, together with the stock boar Suddon Torredor, we can supply select breeding stock, all ages. Satisfaction and safe delivery guaranteed.

H. M. VANDERLIP, Breeder and Importer, Cainsville, P. O. Langford Station on Brantford and Hamilton Radial.

HAMPSHIRE SWINE

Both sexes and all ages, from imported stock. Prices reasonable.

C. A. POWELL, ARVA, ONTARIO Four miles north of London.

Prize Chester White Swine—Winners High-class in type and quality, bred from winners and champions. Young stock both sexes, any age, reasonable prices.

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WOODBURN BERKSHIRES

are founded on the famous old Sally tribe, noted for big size, length of body and strength of bone. We can supply pairs and trios not akin. Show stock a specialty. Also high-class Cotswolds, ram and ewe lambs, shearlings.

E. Brien & Son, Ridgeway, Ont.

Gramandyne Yorkshires & Tamworths

Gramandyne Stock Farm Co., 656 Parkdale Ave., Ottawa, Ontario, can supply Yorkshires and Tamworths, either sex, any age, bred from prize-winners, none better. Long Distance Phone, 3874 Ottawa.

Hampshire Swine

I have a choice lot of Hampshire swine belted hogs for sale. Will be pleased to hear from you, and give you description and prices.

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Large White Yorkshires

Have a choice lot of sows in pig Boars ready for service and young pigs of both sexes supplied not akin at reasonable prices. All breeding stock imported, or from imported stock from the best British herds. Write or call H. J. DAVIS, Woodstock, Ont.

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Morrison Shortorns and Tamworths

bred from the prize-winning herds of England. Have two choice young bulls for sale 10 months old, out of large, deep-milking cows and also some choice cows. Tamworths both sexes.

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—Twenty-five sows bred for fall farrow; a few boars ready for service; also one Jersey bull, 11 months, and two bulls, 6 months old, out of high-producing dams.

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the best strains of the breed, My Berkshires for many years have won the leading prizes at Toronto, London and Guelph. Highcleres and Sallies the both sexes any age. **Adam Thompson Shakespeare, P. O. and Stn.**



Roofing Information

THE days of hand-made wood shingles, such as our grandfathers used, are past. To produce such shingles to-day would cost far more than the best galvanized steel shingles. The ordinary sawn shingles of to-day are a miserable substitute. Their life-time is short because the rough surface holds water like a sponge and collects chaff and decaying vegetable matter which quickly rots the wood.

Galt Steel Shingles make the best and most durable roofing you can buy. They have special patented features possessed by no other steel shingles on the market.

Write to-day for literature and valuable information, which may save you hundreds of dollars. Simply write the word "Roofing" on a postcard, together with your name and address.

THE GALT ART METAL CO., Limited
150 Stone Road, Galt, Ontario.
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FENCE FOR SALE

2,900 rods 7-bar 44-inch all No. 9 fence, 9 stays to rod, 40-rod rolls; in lots to suit. Price 20c. per rod
Also 1,740 rods 8-bar 51-inch, all No. 9, 8 stays to rod, 40-rod rolls, 23c. per rod, f.o.b. Walkerville Cash with order. This fence is highest grade and perfect in every particular. It is special only in height. Also have small amount of 9 and 10-bar.

The Empire Fence Export Co., Limited, Walkerville, Ontario.

Gossip.

LAST CALL FOR T. H. HASSARD'S BIG HORSE SALE.

The big sale of T. H. Hassard, of Markham, Ont., at the Repository, Toronto, on Wednesday, February 4th, when he will sell forty imported Clydesdale and Percheron stallions and fillies, all of them the cream of the two great draft breeds, will be the biggest and most interesting event in the line of horse sales ever held in Canada. All the signs of the times indicate a big revival in the demand, and high prices for draft horses in the immediate future. Canada is pushing ahead at a rate unprecedented in the history of nations, and the big horse is the force that provides the motive power. Look ahead two years from now and see the biggest demand for heavy horses ever experienced in this country, and then consider if the purchase of such high-class breeding stock as will be sold at this sale will not be a money-making proposition. Every animal, male and female, to be sold, is a gilt-edged mortgage-lifter.

P. D. McARTHUR'S AYRSHIRES.

Few Canadian herds of Ayrshires have won so many of the premier honors at the leading shows, from New Brunswick to Alberta, as the Cherrywood herd of P. D. McArthur, of North Georgetown, Que., and few Canadian herds to-day have so many prizewinners among their number as are among the fifty head that constitute Mr. McArthur's herd, prominent among which is the noted champion, 76-pounds-a-day cow, Buttercup, with a R. O. P. record of 10,866 in ten months. The official R. O. P. records of the herd range from 10,000 to 13,110 lbs., and practically all in milk are in the Records. As chief stock bull in service, the great and proven sire, Imp. Whitehill Freetrader, winner of many firsts and championships, still holds sway. He is rising four years of age, his heifers are coming to breeding age, and he is for sale, one of the best individuals and breeding bulls in Canada. Second in service is the grandly-bred bull, Jupiter

PEERLESS-PERFECTION



THE FENCE THAT'S STRONG--YET SPRINGY AS A BED SPRING!

Animals can't break through it no matter how hard their attacks. It simply can't be broken. Just springs back in shape like a bed spring. It's made of heavy Open Hearth steel galvanized wire with all the impurities taken out and all the strength and toughness left in. Will not corrode or rust. Top and bottom wires are extra heavy. Will not sag. Requires less posts than ordinary fence. Absolutely guaranteed.

Here's Proof of Our Statements

Read These Letters

Gentlemen—I have handled your fence for four years and find it a good, strong, durable fence, and that the galvanizing is first-class. In referring to this I have a fence that I put on four years ago across a gully and the water is as high as the second wire and it is not rusted nor broken yet. I had a team of heavy horses that ran into your fence last summer and did not break or damage it in the least, and I am glad to say that in the four years I have handled your wire I have had no complaints about it. I remain,
Yours truly,
DAVID CUMMINGS
Bowesville, Ont.

Gentlemen—About four years ago a fence was put up of your make on one side of a road and I may say today it is just as good as ever it was. Now on the other side of the road is a fence put up at the same time, but not yours; it looked nice at the first, but today you would not know that fence or think it the same. It is both breaking down and rusted. This is just to show that your fence is the best and will wear and I think credit should be placed where it is due.
Yours truly,
W. MADDER
Madford, Man.

These are but a few of the strong testimonial letters we have received from our thousands of satisfied customers. Maybe we have some from your vicinity. Ask us for them. We also make poultry fence, farm gates and ornamental gates. Remember our products are all absolutely guaranteed.

Send for catalog today. Agencies nearly everywhere. Agents wanted in open territory.

BANWELL-HOXIE WIRE FENCE CO., Ltd.,
Winnipeg, Man., Hamilton, Ont.

BRANTFORD BINDER TWINE

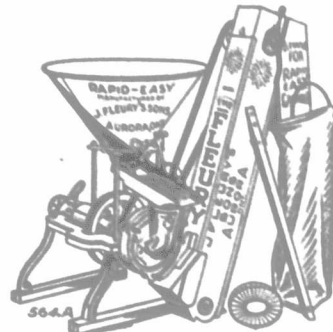
Brands: "Gilt Edge," "Gold Leaf," "Silver Leaf" and "Maple Leaf."
SMOOTHNESS AND STRENGTH—EVENNESS AND LENGTH.
Agents wanted in unrepresented localities.

Brantford Cordage Co., Limited, Brantford, Ont.

A REALLY GREAT LINE

Famous "Rapid-Easy" Grinders

A size to suit YOUR power—small or large—and doing more work with SAME POWER than others.



"LITTLE WONDER", for your 1½ to 3½ h.p. engine.

"RAPID EASY", No. "A", 6 inch plates, 3 to 5 h.p.

"I have given the "Rapid-Easy" No. A-6' Grinder a GOOD TRIAL with 3½ h.p. gasoline engine, in Wheat, Oats and Barley. The Grinder GIVES ENTIRE SATISFACTION, and I would RECOMMEND IT to any intending purchasers."

Sgd. David McClain, Tecumseth, Simcoe County

"RAPID-EASY" NO. 1, 8-inch plates—5 to 8 h.p. "I am DELIGHTED with the work the No. 1—8-inch "RAPID-EASY" GRINDER does in ALL KINDS of grain.

I run it with 6 h.p. gas engine, and grind from 25 TO 30 BUSHELS of grain per hour, and DO FIRST CLASS WORK. It gives me pleasure to offer my testimony about this machine."

Sgd. Jesse Copeland, Bond Head, Ont.

"RAPID-EASY" No. 2—10-inch, 8 to 15 h.p.

"I have been running the NO. 2—10-inch "RAPID-EASY" GRINDER for years, and CAN SPEAK IN THE HIGHEST TERMS OF ITS WORK.

A few days ago I ground TWO TONS OF BARLEY in TWO AND ONE HALF HOURS, using my threshing engine—and DID FIRST CLASS WORK.

Sgd. Frank McArthur, Bradford, Ont.

"RAPID-EASY" NO. 2A—12-inch plates—10 to 18 h.p. and still heavier Grinders for Threshermen—Nos. 3, 3A, 4, 5: for Custom Mills, No. 6, 11-inch; No. 7, 13-inch and 16-inch "Attrition" Grinders.

Ask for catalogue or circulars. Tell us the power you use and we will advise best machine.

J. FLEURY'S SONS, - AURORA, ONTARIO

Medals and Diplomas. World's Fairs Chicago and Paris.

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of Hickoryhill, a son of the great cow, Floss Morton, with a record of 14,110 lbs. milk and 555 of butter-fat, and for sire he has the R. O. M. bull, Imp. Haymaur Milk Record. Also in service is the equally well-bred, White Chieftain of College Hill, out of the great cow, Buttercup, mentioned above, and sired by the R. O. M. bull, Imp. Auchenbrain Albert, who has to his credit as a sire several of the highest testing two-year-old heifers in the Records. This, together with the fact that his dam's butter-fat test average 4.4 per cent., makes him one of the most promising young sires in Canada. Anything in the female end of the herd is for sale, and among the young bulls for sale is a yearling sired by Jupiter of Kirkcudbright, and out of a two-year-old heifer that is now in the test with over 6,000 lbs. of milk, and some weeks to run yet, and her average test all through is 5.30 per cent. of butter-fat, the highest being 6.7 per cent. This kind of breeding in a herd-header is seldom offered for sale. Another yearling is a brother to the great two-year-old heifer just mentioned, as the dam of the other one. Several others for sale are sired by the stock bulls mentioned, and out of official-record dams. Write Mr. McArthur your wants. He will use you right.

CRIPPLED.

A big-hearted Irish politician in a Western city had just left a theater one night when he was approached by a beggar, who said:

"Heaven bless your bright, benevolent face! A little charity, sir, for a poor cripple."

The politician gave the man some coins, saying:

"And how are you crippled, old man?"

"Financially, sir," answered the beggar, as he made off.

MUSTN'T SAY SO.

"Did I tell you about the awful fright I got on my wedding day?"

"S-h-h—my dear. No woman should speak that way of her husband."

Dr. Maria Montessori

Endowment Insurance at Ordinary Life Rates

The Imperial Accelerative Endowment Policy is a combination of all that is best in life insurance.

Premiums payable under this contract are only slightly higher than the Ordinary Whole Life rates, and one does not have to "Die to Win" because, under any circumstances, the face value of the policy is payable to the assured himself not later than at age 75.

All the usual options of dealing with the profits at the end of each five year period are provided. In addition, two special options are granted under which the profits may be used, to reduce the number of premiums payable, or to hasten the maturity of the policy as an Endowment.

An Accelerative Endowment will ensure your own independence in old age, if you live; the independence of your family, if you die.

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FERTILIZING THE POTATO CROP

The potato is the most widely grown crop in the world, and is by far the most important of our vegetable foods. The average yield of potatoes in Canada is slightly over 100 bushels per acre. Many farmers, by proper fertilization, triple this yield. A yield of over 300 bushels per acre is common in the potato districts of the Dominion. During the past season a yield of 735 bushels per acre was recorded in Nova Scotia. This was exceptional, but it shows what can be done, and should encourage many to try to increase their yield of tubers. The man who raised this tremendous crop of 735 bushels FERTILIZED—using in addition to manure and Phosphatic fertilizers 100 lbs. Sulphate of Potash. He realized that potatoes are gross feeders and require heavy quantities of AVAILABLE plant food, especially POTASH, for their proper growth and sustenance.

POTASH is the CHIEF INGREDIENT in a POTATO FERTILIZER

This is readily realized by a glance at the following figures: A crop of 300 bushels removes from the soil 105 lbs. of POTASH, 60 lbs. of NITROGEN and 30 lbs. of PHOSPHORIC ACID.

ENSURE TO YOUR POTATO CROP A READILY AVAILABLE SUPPLY OF POTASH

MURIATE OF POTASH and SULPHATE OF POTASH can be obtained from the leading fertilizer dealers and seedsmen. If you cannot buy locally, write us, and we will advise you.

"The Potato Crop in Canada" (4th edition) is a bulletin published by the German Potash Syndicate. It deals with the cultivation, fertilization, prevention of diseases, etc., and contains interesting results of fertilizer experiments. This bulletin will be mailed FREE, together with any of the following, to any address in Canada: "Artificial Fertilizers; Their Nature and Use"; "The Principal Potash-Crops of Canada"; "Fertilizing Orchard and Garden"; "Fertilizing Grain and Grasses"; "Fertilizing Wood Crops"; "Farmers' Companion"; etc.

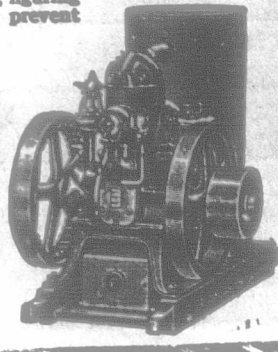
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GERMAN POTASH SYNDICATE 1106 TEMPLE BUILDING TORONTO, ONTARIO

Use Coal Oil—12c. For 10 Hours

This is the cost for Coal Oil per hour power to run this engine, figuring the price at 16c. a gallon. Don't let the high price of gasoline prevent you from having cheap, safe and dependable farm power.

ELLIS ENGINE



Will develop more power on a gallon of the cheapest coal oil than other engines will do on a gallon of high-priced gasoline; no danger of fire or explosion. Simplest engine on the market, only three working parts; starts without cranking; runs either way; no excessive weight; guaranteed 10 years and will last a life-time. Anyone can run it; very complete instructions furnished.

Make Us Prove It Don't let any competitor or agent tell you that Ellis engines will not use coal oil satisfactorily; ask anyone who saw them run at Toronto Exhibition. Let us prove it to you under actual working conditions on your own place before you buy. We'll ship an engine from Windsor, Ontario, on 30 day's trial, freight prepaid, so you will have neither duty nor freight to pay. If we don't prove our claims, send the engine back. Write to-day for catalogue and opinions of users in all parts of Canada.

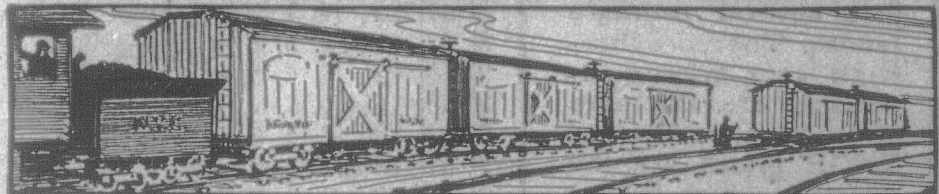
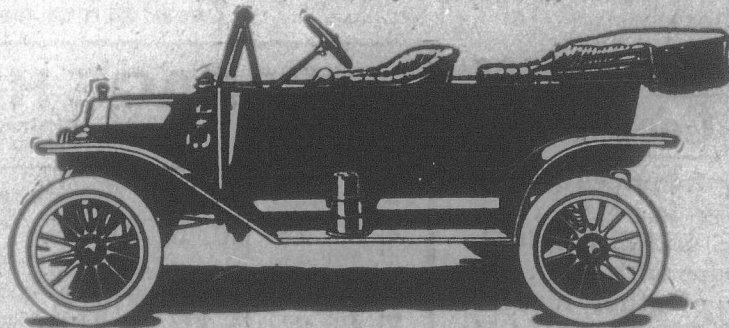
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Why Not Cut Off the Two Cars of Filler?

It takes 400,000 cars to carry American Fertilizers to our farmers and planters every season. Forty per cent.—2 cars out of 5—of this stuff is Filler, which requires 160,000 cars! Order less filler, higher grade and

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NEW COAL OIL LIGHT BEATS ELECTRIC OR GASOLINE

10 Days FREE—Send No Money



We don't ask you to pay us a cent until you have used this wonderful modern light in your own home for ten days, then you may return it at our expense if not perfectly satisfied. We want you to prove for yourself that it gives five to fifteen times as much light as the ordinary oil lamp; beats electric, gasoline or acetylene. Lights and is put out just like the old oil lamp.

BURNS 70 HOURS ON 1 GALLON OIL

Gives a powerful white light, burns common coal oil (kerosene), no odor, smoke or noise, simple, clean, won't explode. Guaranteed.

\$1000.00 Reward

will be given to the person who shows us an oil lamp equal to this Aladdin in every way (details of offer given in our circular). Would we dare make such a challenge to the world if there was the slightest doubt as to the merits of the Aladdin? We want one person in each locality to whom we can refer customers. Write quick for our 10 Day Absolutely Free Trial Proposition, Agents' Wholesale Prices, and learn how to get ONE FREE.

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AGENTS WANTED

to demonstrate in territory where oil lamps are in use. Experience unnecessary. Many agents average five sales a day and make \$300.00 per month. One farmer cleared over \$300.00 in 6 weeks. You can make money overnight and spare time. Write quick for territory and sample.

BLACK KNIGHT STOVE POLISH



A HOUSEWIFE IS JUDGED BY HER KITCHEN. FOR A BRIGHT STOVE AND A BRIGHT REPUTATION, USE BLACK KNIGHT.

A PASTE | THE F. F. DALLEY & CO. LTD. | NO DUST
No Waste | HAMILTON, ONT. | No Rust

Buy PAGE WIRE FENCE Direct From Us Freight Paid and Save Money

SEND your next fence order to the nearest PAGE Branch. Buy for cash at the lowest prices ever made on GOOD fence. Get the genuine well-known high-grade PAGE FENCE—the kind that lasts a life-time. You pay no more for this splendid fence than you'd pay for common fencing. Yet the PAGE FENCE will outwear several ordinary fences. A PAGE FENCE, in the long run, saves you several times its present low first cost. And never before has fence of this quality, been sold direct by the makers at these low prices.

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Lowest Prices For Good Fence

Study the prices quoted below for genuine PAGE WIRE FENCE. Compare with them the prices of other fences. Remember that PAGE WIRE FENCE is the finest farm fence ever made. That it will outlast several ordinary fences. The more thorough your price comparisons are, the more strongly you realize that PAGE prices are the lowest at which GOOD wire fence has ever been sold.

Page Guarantee With Every Rod


With every rod of Page Fence goes this guarantee:

"If PAGE Fence proves defective, return it and get your money back".

No quibble—no strings—no red tape—to this iron-clad guarantee. We can give it with absolute confidence, because PAGE Fence is the best fence made. Big carbon-steel wires, woven under uniform tension—with evenly spaced uprights—non-slipping knots—and the best galvanizing money can insure; these make PAGE Fence good for a life-time, while ordinary fences may need replacing every five or ten years.

PAGE CATALOG

104 pages, illustrating and describing a hundred useful things for the farm. Many of them aren't carried by your dealer. All are sold at remarkable low prices for cash. Write to-day for this catalog.

STYLE		PAGE HEAVY FENCE		PRICES			
No. of Rods	Height in inches	Uprights, inches apart	Spacing of Horizontals in Inches		Old Out. per rod	New Out. per rod	Maritime Prov.
4	30	22	10, 10, 10		\$0.16	\$0.18	\$0.19
5	37	22	8, 9, 10, 10		.18	.20	.21
6	40	22	6½, 7, 8½, 9, 9		.21	.23	.24
7	40	22	5, 5½, 7, 7, 7½, 8		.23	.25	.26
7	48	22	5, 6½, 7½, 9, 10, 10		.23	.25	.26
8	42	22	6, 6, 6, 6, 6, 6, 6		.26	.28	.29
8	42	16½	6, 6, 6, 6, 6, 6, 6		.28	.30	.31
8	47	22	4, 5, 5½, 7, 8½, 9, 9		.26	.28	.29
8	47	16½	4, 5, 5½, 7, 8½, 9, 9		.29	.31	.32
9	48	22	6, 6, 6, 6, 6, 6, 6		.29	.31	.32
9	48	16½	6, 6, 6, 6, 6, 6, 6		.31	.33	...
9	51	22	4, 4, 5, 5½, 7, 8½, 9, 9		.29	.31	...
9	51	16½	4, 4, 5, 5½, 7, 8½, 9, 9		.31	.33	...
10	48	22	3, 3, 3, 4, 5½, 7, 7, 7½, 8		.31	.33	...
10	48	16½	3, 3, 3, 4, 5½, 7, 7, 7½, 8		.33
10	51	16½	3, 3, 3, 4, 5½, 7, 8½, 9, 9		.33
10	51	22	3, 3, 3, 4, 5½, 7, 8½, 9, 9		.31	.33	...
11	55	16½	3, 3, 3, 3, 4, 5½, 7, 8½, 9, 9		.36
		MEDIUM WEIGHT FENCE					
(Maritime Province prices of Medium Weight, also Special Poultry Fences, include painting.)							
No. 9 Top and Bottom, and No. 12 High Carbon Horizontals between; No. 12 Uprights; No. 11 Locks.							
5	36	16½	8, 8, 10, 10		.18	.19	.22
6	36	16½	6, 7, 7, 8, 8		.20	.21	.24
6	42	16½	7, 7, 8, 10, 10		.20	.21	.24
7	42	16½	6, 6, 7, 7, 8, 8		.22	.24	.27
7	26	8	3, 3, 4, 5, 5, 6		.23	.25	.28
8	48	16½	4, 5, 6, 7, 8, 9, 9		.26	.28	.31
9	36	12	3, 3, 3, 4, 5, 6, 6, 6		.27	.29	.32
9	50	16½	3, 4, 5, 6, 7, 8, 9, 9		.28	.30	.33
10	54	16½	3, 3, 4, 5, 6, 7, 8, 9, 9		.30	.32	.35
		SPECIAL POULTRY FENCING					
No. 9 Top and Bottom. Intermediates, No. 13. Uprights 8 inches apart.							
18	48	8	Close bars		.42	.44	.46
20	60	8	Close bars		.47	.49	.52
		PAGE "RAILROAD" GATES					
48			10-ft. opening		3.80	4.00	
48			12-ft. opening		4.00	4.20	
48			13-ft. opening		4.25	4.45	
48			14-ft. opening		4.50	4.75	
STAPLES, 25-lb. box, freight paid					.75	.80	.85
BRACE WIRE, 25-lb rolls, freight paid					.70	.75	.80
STRETCHING TOOLS, Complete labor-saving outfit, ft. pd					8.00	8.50	9.00

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