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AND HOME MAGAZINE

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Vol. XLVII.

LONDON, ONTARIO, NOVEMBER 14, 1912.

No. 1051

Make up your mind now to test PURITY FLOUR on your next baking day

THERE is absolutely no question about the *superior* qualities of PURITY FLOUR. You can make *more bread* and better bread with PURITY than with the same amount of any other flour. PURITY is a rich, strong flour—it swells into *nice big nutritious* loaves, while it's *just the flour* to use if you want to bake cakes, pies or pastry you wish to be particularly proud of.

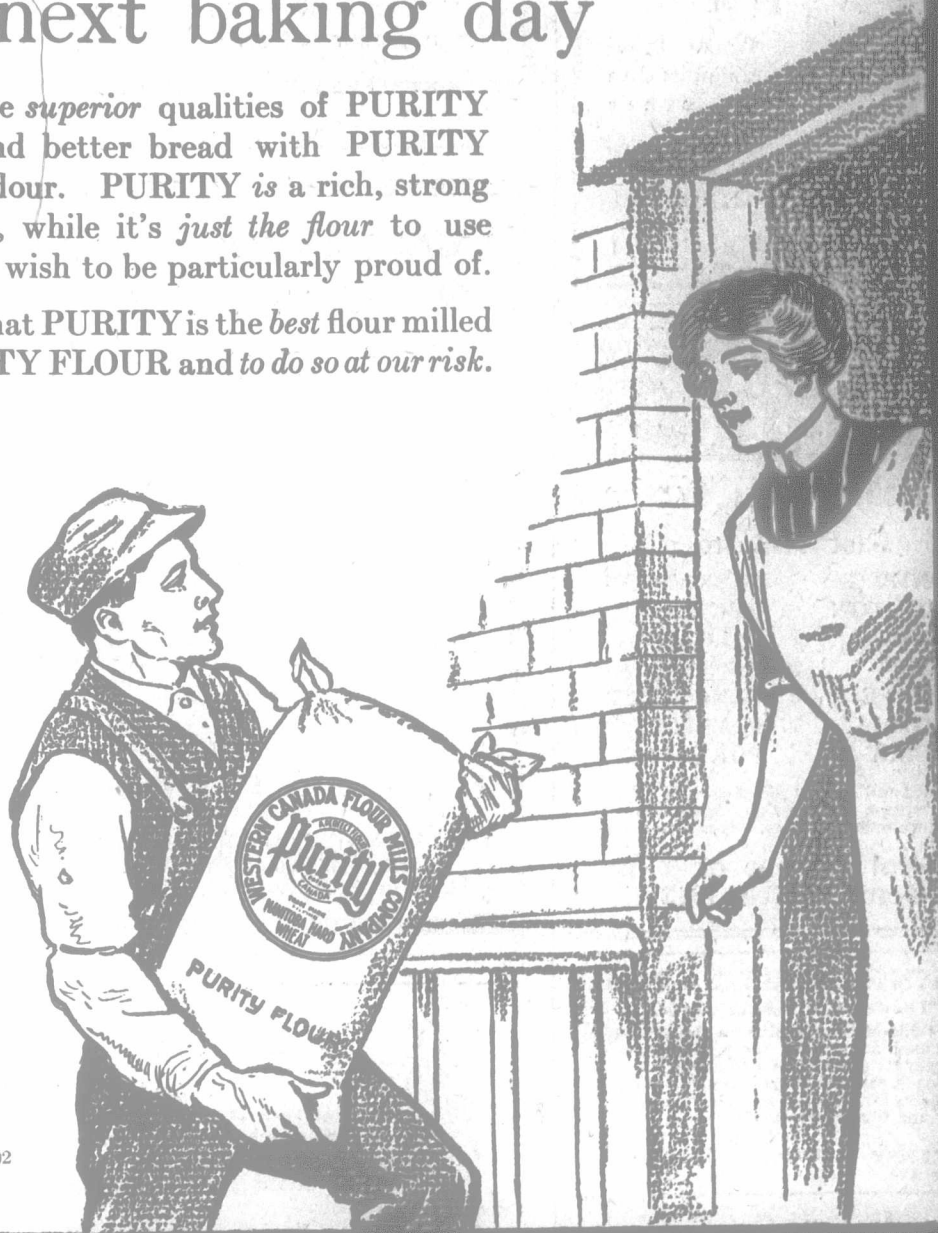
Now's the time to *prove to your own satisfaction* that PURITY is the *best flour milled*—to prove the *truth* of all claims made for PURITY FLOUR and to do so at our risk.

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PURITY FLOUR

Makes

“More Bread and Better Bread”
and—Better Pastry too



602

Put T-A Wheels on Your Wagons



These Wide-Tire Steel Wheels are so constructed that they roll smoothly over the roughest roads, without tiring your horses. And they are absolutely accident-proof—yet cheaper than ordinary, wooden wheels.

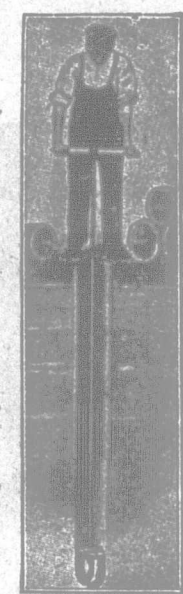
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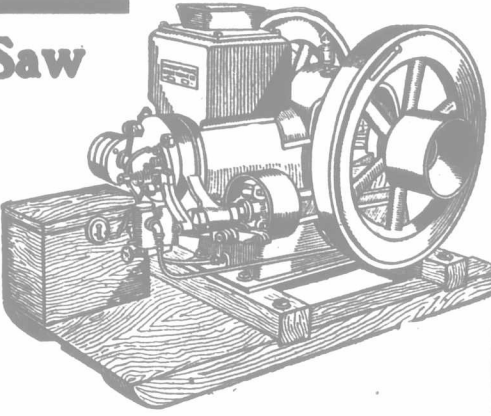
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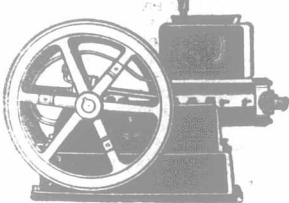
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GRADE PURE-BRED CATTLE, HOGS, SHEEP, POULTRY
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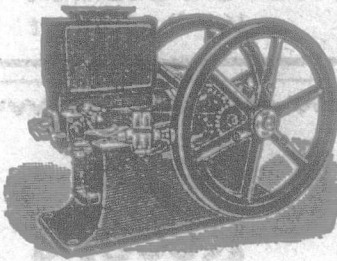
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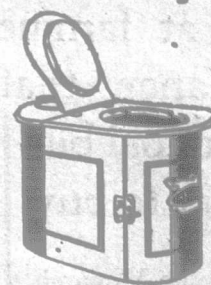
A post card to-day starts you on the road to get a perfect farm engine—best made, best designed, best handled. Why drudge at chores like pumping, sawing, pulping, grinding chop, etc., when a "Monarch" makes this hard work easy? Sizes from 1 1/2 to 35 horse power. Fuel costs 10c. a day or less. Get our two-color folder and special easy-buying terms right now. A post card will get it.



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HON. JAS. S. DUFF,
Minister of Agriculture

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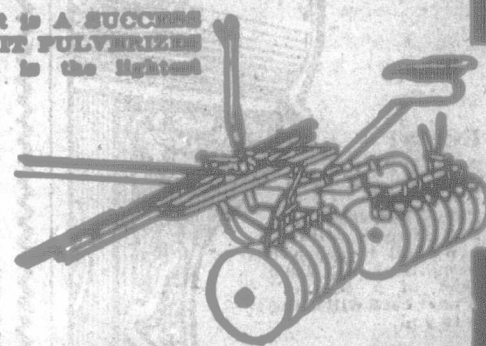
Do the gangs on your Harrow crowd together and raise out of the ground if it is hard? They won't do this on the "Bissell." The "Bissell" is so designed that THE GANGS CANT CROWD OR BUMP together no matter how hard the ground may be.

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will HAVE PROOF that it is a SUCCESS ON HARD LAND—THAT IT PULVERIZES THE BEST—and that it is the lightest draught.

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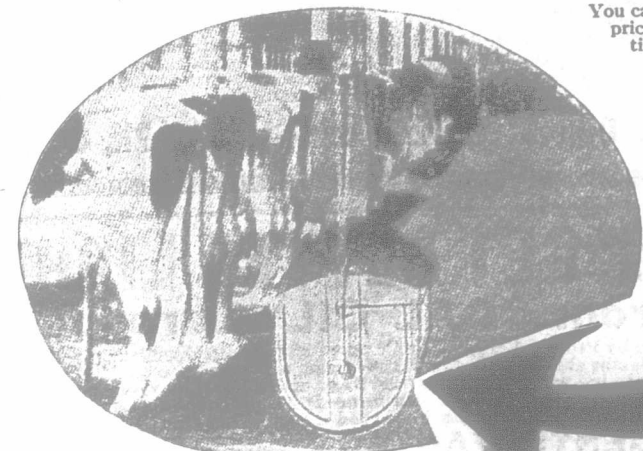


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Such a range the Monarch has proved itself to be.

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Your neighbor will tell you how much this saves her in a year.

Try as you will you cannot keep down the coal bill with an inferior range.

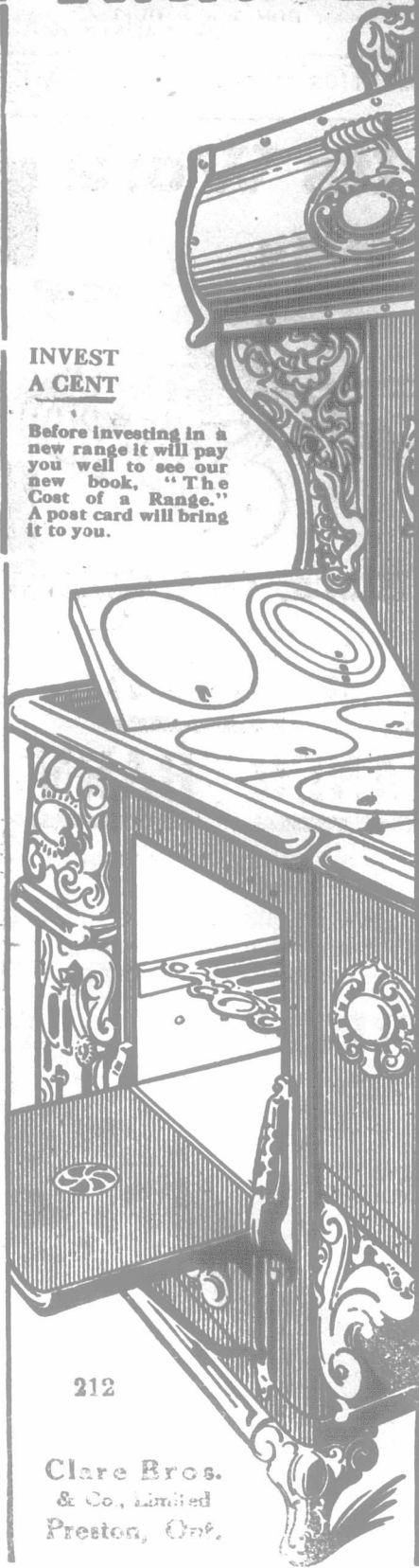
MONARCH

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RANGE

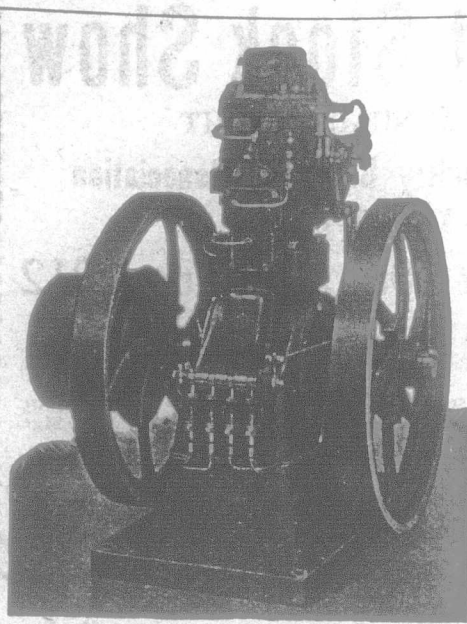
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Before investing in a new range it will pay you well to see our new book, "The Cost of a Range." A post card will bring it to you.



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The Farmers' Power Plant

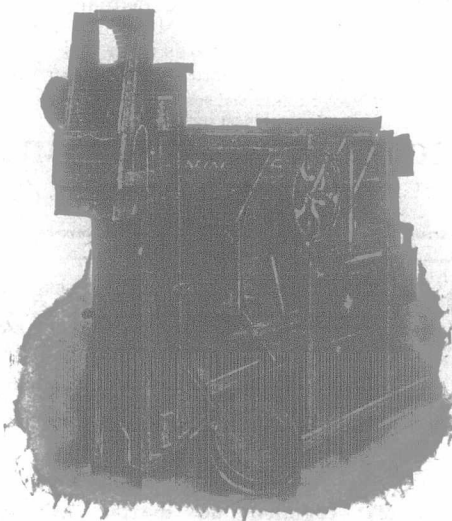
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"Kline" Fanning Mills

are built on correct principles and have several features not found on other fanning mills. They are suited for either hand or power. The prices and terms are such that you will be eager to own a "Kline."

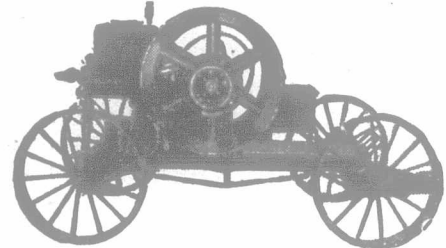
Further particulars will be supplied as soon as we learn your name and address. Agents wanted in unrepresented territory.

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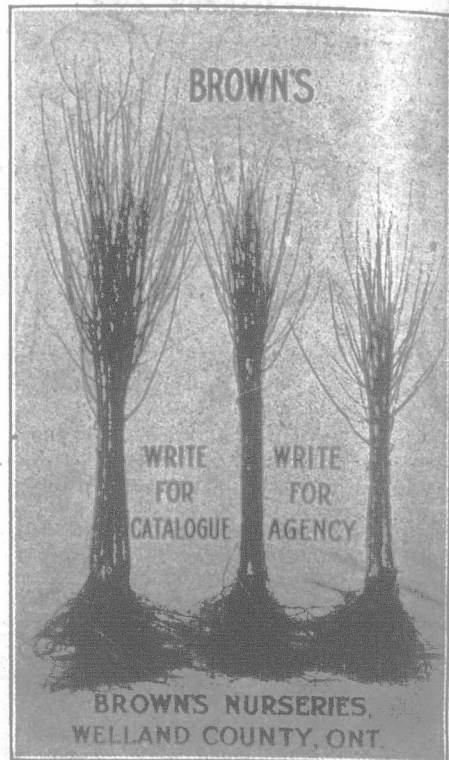
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Tests by Prof. McKergow, McGill University, Montreal, on leading oil-burning lamps show the Aladdin Mantle Lamp is the most economical and gives over twice as much light as the Rayo and other lamps tested. It is odorless, safe, clean, noiseless. Guaranteed. Better light than gas or electric.

To introduce the Aladdin we'll send a sample lamp on a 10 Days Trial home across this lamp. One agent sold over 1000 in 1898. Particulars money back guarantee, not one returned. Another sold \$280 worth in 18 days. Agents made profitable. Ask for agents and trial offer. **ALADDIN LAMP COMPANY 223 Aladdin Bldg. Montreal and Winnipeg, Can.**



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RICE-KNIGHT Ltd.
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The Farmer's Advocate and Home Magazine

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Vol. XLVII.

LONDON, ONTARIO, NOVEMBER 14, 1912.

No. 1051

EDITORIAL.

Let every agricultural society pass a resolution in favor of having ditching machines placed on the free list.

Many are the calves slaughtered each year for veal, which if they were properly reared and fed would make profitable baby beef.

The beauty of the first snow-storm was hardly appreciated by the farmer with a quantity of apples, roots or potatoes ungarnered and not a furrow of fall-plowing turned.

This is a good time to "take stock" on the farm. Think over the successes and failures of the past season, and plan to improve all disappointing conditions for next year by a more judicious selection of crops and methods.

Too much importance cannot be attached to having the farm tools, implements and machinery in order when the necessity for using them arises. Much time is lost on many farms because small defects or breakages are not repaired at the time the implements or machines are stored for the winter. No better advice can be given than to go carefully over each implement and machine stored now if it has not already been done, and make a note of requirements with the firm intention of having them attended to immediately rather than leaving them until the machine is needed, and delays are costly.

Each farm should be more or less of an experimental farm. True, large amounts of money are spent annually by our Government in the maintenance of large experiment stations which are doing a great work, but even with all this to actually measure up conditions on the individual farms of the country a limited amount of experimental work should be done on each. The expense involved demands that the work be limited, but each farm has its own peculiarities, and even each field on a farm is different from the other fields. Many of these things are found out by experiment.

Many crops are well grown, but not well marketed. Marketing the products is one of the neglected phases of farm management. Why not place them on the market in the attractive manner in which the retailer displays them? Most any customer will pay more for an evenly assorted basket of potatoes or apples than for one containing all sizes from the smallest "peeler" to the very large over-grown specimen. These might just as well be assorted on the farm, and the grower receive the benefit accruing therefrom.

Do as much of the farm work as possible with horses. A United States Bulletin on farm management says: "Any system of farming that limits the worker largely to what he can do with his hands, without the aid of horse or mechanical power of some kind, will as a rule bring small returns, and those who follow it will have incomes little if any larger than ordinary wages." This means one of two methods must be practiced, either intensive agriculture on small holdings in close proximity to large markets or increased acres and larger holdings in districts far remote from these markets, and where intensive methods are not so practicable.

Invest Farm Profits in the Farm.

Successful business men reap a profit from their undertakings no matter whether the business is large or small, whether it is a manufacturing business or wholesale or retail dry goods or grocery business, or that of operating a farm. Profit means increased capital and increased capital in most business ventures means increased business, because a good manager uses his profits to enlarge his stock, and thus the volume of the business grows accordingly. Many agriculturists are loathe to invest money earned by their farms from year to year in increasing their holdings or in better equipping the plant already in their possession. The money is placed in the bank or let at a comparatively small interest on mortgages. Oftentimes the borrower uses the money for the very purpose the lender should have used it, viz., to, by better equipment, place his farm or his business in a position to earn greater returns.

"Profit in farming depends not only on the intrinsic profitableness of the enterprises adopted, but also to a great extent on the amount of power employed and the amount of capital invested. If there is profit in an enterprise conducted on a small scale there ought to be more profit in it when conducted on a larger scale."

Large farms cannot be operated without a comparatively large amount of capital, so it is necessary that the beginner commence on a small scale. We learn by experience, and, as knowledge of the business grows, larger undertakings are warranted, and with the growth of knowledge comes the increase of capital, each working to warrant an increase of investment in the farming business.

Few indeed are the farms which could not be made yield larger returns on capital invested by a judicious use of more money in enlarging the holding, or in putting the farm implements, buildings, stock and other equipment in a better condition through increased purchases or repairs. Labor-saving devices mean much in the reckoning of cash returns from the farm. Labor is one of the most important limiting factors in farm profits. Horses and machinery have been found in connection with a majority of farm operations to be far more economical than hand labor. For instance, many of our larger farms are being operated almost entirely by four-horse teams, instead of as formerly by two-horse teams. In the change from the smaller size of implement to the larger there is need of a capital outlay, but who would question the advisability of making this outlay? Is capital thus invested not much more potent as a factor in increasing itself than were it locked in a bank vault at three per cent. interest? Where such a change is made many do it gradually. Carefulness is advisable in most things, but a number of two-horse and a number of four-horse implements on the one farm is not as a general rule profitable. Uniformity of equipment is most economical. Four-horse implements save the time of one man, and, as is now very often the case, where one man only is available, the constant use of four-horse implements greatly increases his efficiency.

This is simply one point. There are many others. How many of our farms are carrying the largest number of cattle, horses, sheep and pigs that they could possibly carry at a profit to their owners? Very few. Some there are who may have reached the limit in this direction, but they are indeed a small minority. We

hear much of the scarcity of beef cattle; milk and its products sell on a ready market at a high price; hogs bring good returns; and the draft horse finds plenty of buyers. Could not some of the profits from this year's operations be profitably invested in the right kind of live stock? More live stock means that more feed would be fed on the land, increased fertility and larger crops would follow. Reaching the limit in the number of animals fed on the farm also brings out better methods. Crops will be more carefully rotated, more soiling crops will be grown, leguminous crops worked into the rotation, and better all around farming will result.

More live stock also necessitates more machinery, for the increased labor makes this imperative. Good implements and machines, provided there is work for them, are always profitable. It is, however, a loss to have too many expensive machines on small farms or on farms where they are needed only a few days in a year. Increased stock or increased acreage will mean that many of these implements or machines will be used to better advantage, because there is much more for them to do, and they are idle at shorter and less frequent intervals.

The whole problem properly managed means that when the capital made from the farm is judiciously increased therein increased returns are sure, for each branch properly managed works so well into the other branches that they all make for good. Think it over carefully before investing the profits made this year. Go over the farm stock, implements, buildings, and other equipment and carefully size them up and see whether some or all of these profits could not be put to good use right at home, use which cannot but increase interest in the farm as well as returns from it.

Canadian Cereals Win.

The great strength shown by Canadian grain exhibits at the International Dry-Farming Exposition, Lethbridge, Alberta, is a matter over which Western Canada can feel justly jubilant. It is scarcely a year ago when, at the New York Land Show, Seager Wheeler, the Saskatchewan farmer, on his exhibit of Marquis wheat won the \$1,000 in gold that was offered for the best bushel of wheat grown anywhere in the world.

Now at Lethbridge, where the competition is open to practically the whole of North America, in very nearly all grain classes in which Canadians can compete, state or provincial, the awards are coming to Canada, and to Canadian farmers not only comes the highest award in wheat, but in oats, barley, and flax as well, the staple crops upon which Western Canada has built her reputation. One notable feature in connection with the award for best bushel wheat is that the prize goes to a Marquis sample, the new Canadian-bred variety that won for Seager Wheeler last year. Not only did the premier prizes come to Canadian-grown cereals, but the great bulk of all the premiums was won by Canadians.

Gratulating in these facts, our Winnipeg contemporary very prudently warns its readers not to rest with the spirit of jubilation, for to do so would be yet to fall. While not forgetting to give credit for the cultural methods employed to produce this prize-winning grain, the main credit is properly ascribed to soil and climatic conditions, and a timely hint thrown out that cultural

THE FARMER'S ADVOCATE AND HOME MAGAZINE

THE LEADING AGRICULTURAL JOURNAL
IN THE DOMINION.

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JOHN WELD, MANAGER.

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methods must continue to be perfected if the victories recently won are to be duplicated at the half-century mark, when soils have felt the drain of cropping and cultural methods really count.

Recast the Rural Curriculum.

While a considerable proportion of our criticism of educational ideals and methods has been directed rather specifically to conditions obtaining in the Province of Ontario, most of it is quite applicable to other communities as well. The English edition of the Journal of Agriculture and Horticulture, official organ of the Quebec Council of Agriculture, criticizes the school system of that Province on much the same grounds.

"In a recent campaign for the betterment of rural schools attention was frequently called to the great lack of interest in the schools by the ratepayers themselves. We are of the opinion that the main cause of this serious condition of affairs was not clearly brought out and emphasized sufficiently at the meetings. So long as parents continue to see children turned out from schools poorly prepared for life's battle on the farm, so long will lack of interest prevail. For years they have observed that the young people have but little sympathy with farm and country life; and for years they have watched the long procession to the cities and towns. The real trouble, in our humble judgment, lies in the course of studies pursued in the rural schools.

"There is a great need for a reconstruction of the courses of studies so as to meet the requirements of rural life. Surely it is time that our country children learn about the things which make up their environment. A knowledge of these common every-day things, weeds, birds, insects, soils, crops and animals, is very essential to the farmer who pretends to be more than a chad breaker.

"This is not a new doctrine we are preaching. There has been advocated for many years the introduction of Nature Study, or the study of the child's surroundings, into the schools, not as a mere graft (so to speak), or an additional study to the already overburdened course, but as the main subject or trunk to which the other studies are related as branches. It appears to us that if an unprejudiced educator was to establish for rural Quebec an educational system best suited to its needs he would certainly make more of the study of country life. He would also give decided prominence to studies that prepare the children for living the fullest and most satisfying lives. As most of them will become workers and homemakers it is essential that they receive instruction in subjects that will train their fingers to work and their eyes to see, and that will prepare them for the great work of living."

Sound sense this, is it not? The writer expresses a correct conception where he urges that the study of nature and rural environment should not be engrafted as a separate subject on an overburdened curriculum, but as a trunk to which the other studies would be related as branches. Perhaps this is putting it a little strongly, but certainly the new phases of education, such as nature study, school gardening, manual training and domestic science should not be regarded as superficial additions, but rather as an integral part of rural schooling, and as such should be knit as intimately as possible with the literary and academic phases. Until they are so knit, they will not be likely to receive serious attention from the general run of teachers, trustees, ratepayers or children, and even if they did receive attention, would fail of their highest purpose and greatest benefit. The whole curriculum of the rural school must be recast, and the new phases properly correlated with the old.

Where the Country Schools Fail.

Editor "The Farmer's Advocate":

The world sure loves a "bonny fighter," and your knock-out blow to unpractical education and educationists has certainly earned you that title, as well as arrested the attention of those who think and solve problems.

I should like to tell you why I wrote those "whys." Then your critics will better understand whose cause we are championing. Let these same critics attend the public school in their immediate neighborhood, and ascertain whether the same conditions do not prevail there as I am describing. If they are honest with themselves they will fall in line and clamor for better instruction in the things that count.

1. The first thing that awakened me was when I took my own daughter home from where she had been attending Public School in Toronto, and sent her to our own village school. In answer to my questions as to how the schools compared she told me that she liked the city school much better because it was much more interesting. There, the pupils were taught sewing once a week, for the Second and Third classes with Domestic Science and Manual Training for the Junior and Senior Fourth. Coloring with water colors and crayons also formed a pleasing break in the monotony of lessons, and their work was criticized twice a month by a competent critic.

Upon inquiry I found out that the Public-school curriculum provided for the teaching of Sewing and Manual Training, but so far as Rural Schools are concerned it is a dead letter. In our own case when it was brought before the Trustees to have sewing taught, it was turned down 2 to 1, although we have two lady teachers for between 50 and 60 pupils.

2. There is one large and constantly increasing family in our section that I have in mind as an illustration. The father works hard and I think the mother does. One cannot raise ten or a dozen children without doing some work. The mother was a home girl who picked up her knowledge of housework. She never was taught the how or why of things, so how can she teach the children. They come to school when they like, improperly fed and not always properly clothed. No one worries when they are absent, which is a goodly portion of the time. When they do come they are half-supplied with pencils and books. They are ignorant of the first principle of hygiene. People give them clothes, but their knowledge of sewing is limited and there is no one to teach them. If the clothes fit, all right, and if they don't, all right—they wear them just the same.

As fast as they are beyond school age they work around for people, and manage to "pick

up" a way to do things. But underneath this veneer is the "no-training" of their youth. They are not competent either as farm-hands or as house help. They have a smattering of learning, but no education.

3. Another thing to set one thinking is the number of boys of fourteen and fifteen years old who seem to want to prop up the walls of the village hotel or loafing place. Suggest school to them, and they hoot at you. Why they are beyond school age, and don't "haff to go to school." Talk to their parents and they will lament to you that their "children just dreaded to go to school, and they were glad when they didn't 'haff to send them." Their excuses are: "Well, they didn't like the teacher;" or "They had to stay out and got behind, and they couldn't bear to go in a class with a lot of little kids"—etc.

4. I write of reason 4 with pleasure. The father of a large family said to me "I never had much education myself, and I have felt the need of it, and I made up my mind to give my children the best I could give them."

Now, Mr. Editor, Mr. McCready, Mr. Wilde, Christian Guardian and others:—

(a) Are you satisfied with the education the Department is dealing out to our country boys and girls?

(b) Is it right to make flesh of the city children, and fowl of the country children?

(c) Do you not think the results would be better if the antiquated Trustee System now in vogue were replaced by a Union or County Board of Trustees having control over all pertaining to educational matters in the county, leaving to the section supervision of the school premises?

(d) Do you not think there should be a woman on every school board?

(e) Do you not think a Board for each Township would be better than a County Board, and then have a Convention for these Trustees the same as the Teachers' Convention?

(f) Can you tell me the use of having so many absentees in the schools when the law provides for a child attending every school-day unless sickness prevents? The teacher has a record of those who are chronic offenders, but who is to insist on their regular attendance? Personal reasons prevent many trustees from doing so, and in the language of the schoolyard: "The teacher dassent."

(g) Do you ever attend an annual meeting in your section, and notice the interest or lack of interest the ratepayers show in educational matters? Kindly do so this year.

Every occupation, every walk in life demands efficiency, no matter if the job be washing kettles or publishing a paper. Those who are started right are to be envied, those who are not, have to spend valuable time unlearning and relearning.

Time was when I was as satisfied with our system as is Mr. McCready now, but not since I started investigating. The reward I get now is to be called "an agitator," "one with an axe to grind," and a dissatisfied person generally, but remember it is the dissatisfied person who obtains benefits for the satisfied person, that the latter would never obtain for himself.

As for Mr. McCready's plea to all work in harmony with the Department, we would only be too glad to do so. I have been sending children to school six years, and never a bulletin or leaflet from the Department of Education on any subject. It would pay them if they would consult with or advise us. Farmers are too busy to keep in touch with educational progress to the extent they would like, and like young birds they shut their eyes, open their mouths and swallow whatever the Education Department chucks down, without question.

Once in a while the farmer chances on some book or bulletin showing what other countries are doing with regard to their youth; then he awakens and demands as good or better for his own.

OUR GOVERNMENT

catches the farmer and the farmer's wife by means of Institutes, which tell them how to do things correctly, but it leaves the farmer's boys and girls alone until they have spent one quarter of their natural life before they are roped in.

OUR GOVERNMENT

provides well for juvenile offenders, and provides well for older offenders, but overlooks the fact that it would be cheaper and more satisfactory altogether to prevent there being juvenile offenders.

CREDO—I BELIEVE.

And now a few words as to Mr. McCready's Articles of Belief.

With No. 1 I disagree, because if we have the best system in the world, why are there so many of the "native born" who are barely able to read and write?

With No. 2 I heartily agree.

With No. 3 I partially agree, but would add: "as well inspected as it is possible to be considering the number of schools to be visited." In our district there are 110 teachers, which means

110 rooms to be inspected twice a year with fewer than 200 schooldays to do it in. In addition to this is a great deal of clerical work.

With No. 4 I disagree emphatically. If you wish to know how the average section supports its school, just attend an annual meeting and count noses. If you judge the system by the attendance, it is slack. If you should run across a full attendance you can safely bet the trustees have been expending a little more money than usual, and Mr. Ratepayer is going to haul them over the coals.

With No. 5 I disagree on general principles. Comparing our neighborhood schools with rural schools in Minnesota, Iowa and Texas, I think we are far behind them in practical education. I read of rural schools there where they hold stock-judging and grain-judging contests, where exhibits of cooking and housewifely skill are also held under school auspices; where short term scholarships at the State Agricultural College are given to successful judges and winners; where Canning Clubs and Corn Clubs are the rule in Rural Schools. Where an Educational Column is conducted every week in the county paper, informing the community of anything of interest concerning the schools and the system of education.

With No. 6 agree and coincide, and consider, as we used to say in geometry. I sincerely hope the Department of Education will devise some more systematic system than we have at present. Give our country children an equal chance with their city cousins.

One trouble has been the true meaning of the word Education has been overlooked. Our children are stuffed with definitions and rules they do not understand; difficulties are explained to them in words whose meaning is unintelligible to their immature minds. They are instructed, not taught, and any originality or creative genius is repressed. Education is the educating or drawing out the latent powers of an individual.

I hope the day is not far distant when we will have in every rural and village school competent instruction in Sewing, Domestic Science, and Manual Training. If this can not be done by the teachers, it would be easy to have instructors visit the school weekly.

I would also like to see each section supply the school with books and necessary materials for carrying on the school work. A better recognition of our Canadian authors in our readers would also be acceptable to the native-born amongst us.

Other things tending towards efficiency and quite within our reach would be medical inspection of the schools; compulsory attendance for every schoolday from children between the ages of six and sixteen, unless said child has an Entrance Certificate or is physically unable to come; a well equipped laboratory and playground.

HOWARD KENT.

Nature's Process of Selection.

Editor "The Farmer's Advocate":

Maybe ye'll no' remember an auld chap by the name o' Sandy Fraser that used tae be writin' tae ye and settlin' yer problems for ye, frae the "Hired Help" question tae "the reason why the young men leave the farm"; but gin ye dae ye'll perhaps no object tae lettin' me gie ye another lift, for I'm dootin' there's still a thing or twa on yer mind that ye canna' juist explain awa' tae yer ain satisfaction. I hae na' seen anything in the last issue o' yer paper on the "high cost o' livin'," so I hae come tae the conclusion that ye hae given the hale thing up in despair. I think ye said a short time back that ye didna' want tae see the cost o' remainin' on this auld earth reduced by increasin' the production o' oor farms an' in this way lowerin' prices tae the consumer.

Weel, gin ye wanna' hae it that way (though for mysel' I think there are ways that might be worse), we'll hae to try an' bring ye peace o' mind by some ither plan. Hoo wad it suit ye tae be tauld that this thing we're fightin' is the best thing possible for the world in general, and in the lang rin will prove tae be a blessing in disguise. Na doot ye'll wonder hoo I can mak' that oot, but juist wait a minute. Ye ken, o' coorse, that when a mon has an easy life an' doesna' hae to scratch for a livin', but juist pits in the time dodgin' trowble an' lookin' for amusement, he isna' likely tae develop vera much muscle or back-bone either, for that matter, but is mighty lucky gin he keeps oot o' jail tae the end o' his meeserable existence.

Will, noo, dae ye no' see what the high cost o' livin' should dae for the maist o' us. It should an' does mak' us get tae work, an' work the best we ken how at that, an' the effort we pit forth is what is gaein' tae mak' men oot o' us, gin the Lord has given us onything at a' tae start wi'.

But change the condeetions, an' mak' it easy, or even possible, for a man tae get his bread an' butter wi'oot scratchin' for it, an' ye'll soon hae him like the niggard doon in the warm countries, wha, they say, lays on his back under the trees an' lets the bannanas an' sic' like things drap in-

tae his mouth, as he hasna' the energy tae get up an' pick them for himsel'.

Noo, there are some that seem tae think that it's juist lately that we hae rin intae this difficulty aboot gettin' oor board an' lodgin' at reasonable rates. But gin ye'll look back as far as history will let ye, ye'll see that things were aye pretty much the same. There was aye a certain class that didna' ken or care aboot the price o' onything. They had what they wanted gin money could buy it. But there was anither class, an' a guid deal bigger class, too, that had tae mak' a wee bit o' siller gae as far as it would in supplyin' their wants an' then go hungry the rest o' the time. This is the class that can post ye on the price o' farm produce, I can tell ye. But what is mair; this is the class from which we got maist o' oor smartest men. It was a case o' low livin' an' high thinkin' with them. They had tae fight for their existence an' the weak went under an' the strong came tae the top. It is Nature's way o' siftin' oot the trash, an' it's a way that's pretty hard tae improve on. Gin we han't men that will dae the world's work, that is the way we are gaein' tae get them. There's naething like a spell o' hard times tae weed oot the culls. Ye ken aboot the doctrine o' the "survival o' the fittest." Weel, this is juist that same doctrine pit intae practice. Anither thing the high cost o' livin' does for the world is tae prevent over-population. Every once in a while we hear o' a famine in India or in China an' thousands o' the inhabitants are starved tae death. It's no vera pleasant tae read aboot, an' it must be a wee bit mair unpleasant tae experience, but gin it werena' for that, there wouldna' be standing room there in a hundred year or so, an' it's juist Nature's way

I ken), but at the same time it's no a gold-mine he's workin'. The majority o' the people o' this country will sink or swim thegither, for prosperity for one class means prosperity for the ithers, as a rule.

So noo, Mr. Editor, ye see we hae settled the auld question o' the high cost o' livin' by juist provin' that it is a natural condeetion that canna' be helped, or improved on for that matter, an' gin ye can tak' that view o' the case it will save ye a lot o' worry an' ony feeling o' responsibility that ye may hae in regard tae it. It's no' yer duty, I'm thinkin', tae mak' life easy for yer mony readers an' friends, but tae show them how tae overcome the difficulties an' dangers that they are gaein' tae rin up against in the coorse o' their natural lives. Ye ken what it is yerself, Mr. Editor, tae swim against the stream, I'm thinkin', an' ye'll no say that it wisna' guid, healthy exercise, I'm sure. Up-hill wark is the only way o' gettin' tae the top, tak' that frae me.

SANDY FRASER.

HORSES.

Hocks are to a certain degree a limiting factor in the power of the heavy horse.

Great weight in the draft horse makes the animal's footing more secure when drawing a heavy load.

Drive the trotting or roadster stallion on the road regularly during the winter. Do not overdo it, but keep him exercised.

Leading the colt to and from the watering trough two or three times daily is not enough exercise for him. Let him race around the yard or paddock for several hours every fine day.

The date of the seventh annual International Horse Show, will be held at Olympia, London, from Friday, June 20th, until Tuesday, July 1st, 1912, inclusive.

Strong backs are very essential in the drafters, as there is a tremendous strain upon them in forcing the horse's weight forward, while at the same time trailing a heavy load.

All young animals have a certain allotted period of growth. See that the colts get the care intended to promote size at the proper time, for once they have passed a certain age growth ceases, and efforts to renew it are in vain.



Tuttlebrook Esquire. First-prize three-year-old Shire stallion, at Toronto, 1912. Owned by John Gardhouse & Sons, Highfield, Ont.

o' cleanin' hoose, so it's no' for the likes o' us tae dispute her wisdom. An' so far as oor own country is concerned the increased difficulty o' makin' a livin' for a family has a tendency tae limit the size o' that family, an' that is gaein' tae gie us what every country needs, fewer children, but stronger an' healthier an' better trained an' educated than we hae them at present. It's quality, not numbers, that is gaein' tae count for something in the future, juist as it has in the past.

An' noo, Mr. Editor, there's one mair point that is na' vera clear tae some people, in regard tae this question that we hae under conseederation. A word on that an' I'm done. "Hoo is it," they say, "that the farmer isna' gettin' rich faster than he seems tae be doin', when he gets sae muckle mair for what he sells than he used tae?" Weel, we winna' hae to gae vera far for a reason. The farmer gets mair dollars than he did once upon a time, we'll hae to admit that. But does he get ony mair actual value for his produce than he did ten or twenty year back? Gin his dollars are gaein' to dae him ony guid he has tae spend them, an' what has he got then? Not a bit mair than he had for his crop in the days o' the past. It isna' fair tae say that the farmer is gettin' rich at the expense o' the rest o' the country. As a rule, he is makin' a decent an' honest livin' (which is a muckle sight better than gettin' rich,

At one time in the great breeding studs of Germany under Government supervision, fifteen to twenty mares were all a stallion was allowed to serve in a season. This was a very small number, but at the present day many of our best stallions are somewhat over-worked.

Of all live-stock horses are the best drawing card at an exhibition. The most phenomenal cattle, sheep and pigs, while they draw the breeders, have not the fascination for the city spectator that the horse has. No matter what the breed, good individual horses attract and deserve attention.

An important season for the in-foal mare is at hand. Winter means idleness. Idleness means danger. If possible give her light work. If no work can be found for her use the paddock, and see that she moves around. Very often these mares are very loathe to move about, and it is necessary to drive them to it. Where such is the case do not hesitate to compel them to move about.

Letting colts or work horses rough it through the winter is not a gain, but a decided loss to the owner. No colt grows into a better horse by spending his winters in the barn-yard, and no horse after the autumn's work is more hardened for that of the spring, because he fed night and day from the straw-stack with the canopy of the heavens his only cover and shelter from the rains, snows, sleet and driving blasts of a northern winter. Good shelter saves feed, aids in keeping the stock in condition, and is in every way profitable.

Keep the draft as low as possible, but not so low as to cause injury to the shoulder point by collar pressure. King says in dealing with the attachment of the traces to the hames at the shoulder: "To enable a horse to utilize his full weight to best advantage in draft, it is important that the attachment of the traces at the collar should be as low as the comfort of the animal and other conditions will permit. When the traces are low at the shoulder there is less leverage for the draft to raise the horse off his front feet, and hence his weight counts for more. For the same reason a horse low on his feet, and with a relatively long body has greater leverage for his weight in draft."

Bring Out the Horses.

Those who have been privileged to visit the large horse shows in the old land are frequently heard to remark that the small breeders take a large portion of the prize money, that the owners of a few animals often with only one entry are very numerous, and that some of the very best Clydesdales in Scotland come from these small studs. How different have been our large exhibitions on this side of the Atlantic the past few years. In the open classes of every prominent draft breed the fight almost invariably simmers down to a contest between the entries of the large breeders and importers. Even in the classes for Canadian-bred stock, horses from the large stables move to the front. This has occurred with such regularity that many of the young breeders—the men with one or two good mares, young stallions or foals have become discouraged, and leave their stock at home while they go to the fair and size up the "other fellow's" horses.

This is casting no reflections upon the breeders and importers who operate on an extensive scale. They are doing a great work for horse breeding in Canada. Someone had to launch both time, and money or our horses would never have reached the high place which they now occupy. Importers and breeders have accomplished this. We now have some of the best of the various breeds, and are in a position to breed upon a larger scale. Foundation stock of necessity had to be imported. There is still room for more imported stock, and new blood will be necessary year after year, but there is no reason why we cannot breed the good ones now and it is being done, but more interest must be instilled into the mare owner or the owner of a small number of pure-bred individuals.

There is nothing quite so inspiring as a real good horse show where everything is done for the interests of the breed—where the horse gets the award, and not the man holding it. There is nothing which encourages the young breeder or the man operating on a comparatively small scale more than winning red and blue ribbons, and the money prizes accompanying them. It is a great incentive for these men. They are sure to increase their business and their enthusiasm is surely infectious. The next neighbor seeing his friend's good work enters into the game also. Soon the whole community is stirred, and dozens of the smaller owners exhibit where one was in line in the beginning. This looks very rosy, but this according to all accounts happens in Scotland where smooth-faced youths, early in their teens, lead the colt to the show to compete against those entered by their gray-haired elders, and those of the distinguished breeders. What an honor the boy feels as he holds his colt before the judge. What a thrill a win sends through his frame. He goes home determined to try again, and next year perhaps plans to bring out two or three in place of one, and thus his interest grows. He may bend all his efforts again on a single entry, seeking to win the highest possible prize by showing an outstanding individual. It matters not whether he increases his entries quantitatively or qualitatively he makes progress, and because he, with a small beginning and still operating on a small scale, is successful, others are encouraged and stimulated to successful efforts.

Our exhibitions are of a high order, and grow better every year, but if some means could be found to get more horses from the amateur stables, a great work in the interests of horse breeding would be accomplished. Interest must be stimulated by some means. Judging classes for young men at the fall fairs should, and we believe will have a good effect. It will help to inspire confidence in the younger generation. It will

cause them to put more critical study upon breed characteristics (desirable and undesirable points). Short courses in stock judging as they are carried on at the O. A. C., and by the County Representatives, will have an effect. It is a matter of educating the young to the possibilities before them, just as the accomplishment of all great agricultural undertakings is hastened by a wider and deeper understanding of underlying principles. Successful horsemen, like successful men in any other walk in life, must understand their business, in other words must know a horse. To learn to know a horse, interest and instruction are necessary. Horsemen, especially our younger horsemen, should be given greater encouragement to enter the ring, first by promoting an interest in the judging by inducing them to watch it closely and critically, then by colt shows for amateurs, or by some other means which our horse breeders' associations should be able to devise, encourage them to compete in the open classes. Make them understand that it is not the number of horses entered in which the merit lies, but in the quality of the exhibit.

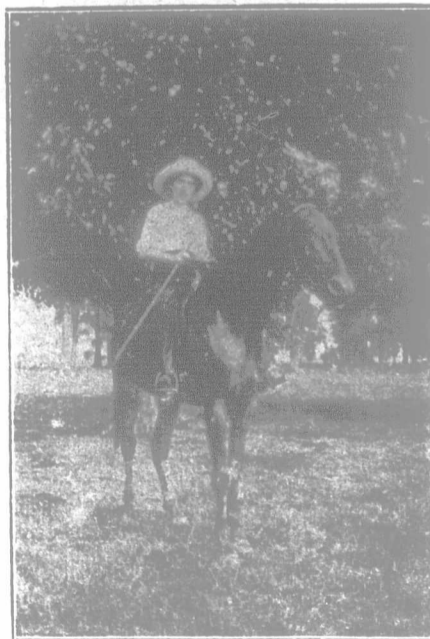
A single entry, if it is of a high order, is just as creditable to the beginner as the scores of the show-yard veteran. When the beginner brings his colt, insure his coming back again by good, fair, just, treatment. If he is to make a horseman of calibre he will not grumble at just defeat, but will put forth an extra effort to bring out a better entry another year. But if he has the goods and the judge shows favoritism and he loses out, the chances are that he will be disheartened. The show ring is no place for egotism. It is no place for sore heads. The showman must be able to see the faults as well as the good points of his own as well as of his competitor's animal. Fair, honest judging, more classes for the amateur, and a better knowledge of horses, should bring more horses into the ring, and more owned by the younger and less experienced showmen.

Girls, Ride Horseback.

Editor "The Farmer's Advocate":

In the great rush for motor cars now going on many farmers are investing in them, and many more, especially the young people, are wishing for them. While this may be all right, when the expense is not too great, still the motor car is as yet a rich man's luxury, and the rank and file of the farmers must do without them.

I would like to call the attention of the young people, especially the girls, to a possible pleasure within the reach of almost every farm girl or boy; one that is even more fascinating



Who Wants an Auto?

than motoring. I refer to riding on horseback. If you have a colt with a strain of light blood in him, break him to the saddle and see what pleasure you will have.

This illustration shows Miss Agnes McGregor, of Toronto, on her favorite colt, Lady Betty. Spending a few weeks on the McGregor Homestead, Halton Co., Ontario, she induced her uncles D. and John B. McGregor to break in this colt. As shown in the photograph, the divided skirt is worn, securing comfort to the rider, and Miss McGregor spent many happy hours cantering over the country roads. Don't sigh for a motor, girls, get a divided skirt, get a line on a colt and enjoy yourselves.

Halton Co., Ont.

ROB ROY.

Plowing with Four Horses.

Editor "The Farmer's Advocate":

I noticed in a September issue of The Farmer's Advocate, R. S. asked for information regarding the working of four horses on a double-plow without driving one on the plowed ground, and in answering him you did not give him much encouragement. Now, I do not know who wrote the reply, but I have seen the same question asked in The Farmer's Advocate before, and always accompanied with a similar reply. Until this summer I always believed the explanation you give, but now I am persuaded the answer is wrong.

Last summer necessity compelled me to purchase a two-furrow riding plow. It is made by a very well-known Canadian firm, and turns two twelve-inch furrows. I never have tried to drive fewer than four horses on it, and it gives perfect satisfaction. I did all my plowing last spring, also a field of sod in July (heavy land, too), and my skim-plowing this fall, and have had the four horses on the job as much as six days at a time without a change, and I have not had the first appearance of a sore shoulder or chafed side or leg on any one of my horses. This statement can easily be verified by several of my neighbors who have seen me do the work I speak of. If you have the right kind of a plow you need have no trouble in working four good-sized horses on it without driving one on the plowed ground. I have four good average-sized horses, two of them would weigh 1,500 lbs. each, the other pair each between 1,200 and 1,300, and all of them of medium type, not very blocky and not up-standing. Just here let me state that when I am at work there is always enough open space between my horses to allow a couple of hundred pounds more flesh on each horse without crowding. I place the bridle almost directly in front of the left beam, a little to the left of centering on the beam. At first I expected this would pull the plow cornerwise, but it does not. I can't explain what keeps it running straight, but it seems to run quite true. In regard to the criticism regarding side-draft, I may say that my horses walk very slightly sidewise, but so little that it is scarcely noticeable and not enough to cause them any discomfort. This is caused by the large double-tree being rather short, but as there is room to adjust the bridle still farther to the left, I could use a longer double-tree if necessary. This side-draft does not tend to pull the furrow-wheel out of its place. When I first tried the plow I put the off-horse on the plowed ground, and had the bridle in front of the right beam, and the furrow-wheel would travel about the center of the furrow, thus the front plow did not turn its full width, but as soon as I put the off-horse in the furrow the furrow-wheel stayed up to the land, or nearly so, and the front plow took its proper width. This furrow-wheel can be adjusted (by means of a convenient little lever) to cut across the furrow at any necessary angle to keep the plow from crowding too far to the land side, but this is scarcely necessary as the plow runs about straight.

Huron Co., Ont.

T. W. PICKELL.

LIVE STOCK.

Increase the steer's ration as the feeding period advances.

Use the currycomb freely on the fattening cattle. It pays.

Keep the feed passages free from litter and the entire stable clean.

Feed the fall calves milk while it is warm. Cold milk causes scours.

Nearly five dollars per hundredweight difference between the price of cattle on Chicago and on Toronto markets recently.

Ram lambs and shearing rams require more feed proportionately than ewe lambs and shearing ewes. They are more restless.

Pigs properly managed are one of the most profitable classes of live stock. The outlay necessary is comparatively small and returns are quick and remunerative.

Turn off the farrow cow and fill her stall with a regular breeder. Feed is not so cheap that there is profit in keeping cows which conceive one year in two.

Do not force the pig to take too much water in his food in cold weather. It requires consid-

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erable energy to raise the temperature of the water to that of the body and an excess means waste of food.

Pulped roots have no substitutes in the feeding of the calves and young cattle. Mixed with silage and a little grain, they make about as good substitute for pasture-grass, as far as succulency is concerned, as winter-feeding affords.

Did your fall litter come into the world in a nest of leaves in the woods, where the sow was "beech-nutting" for a living? Not the best conditions for sow or litter. Young pigs suffer greatly from cold rains and early snow, and should by all means be comfortably housed.

The old sow may yet be more valuable as a breeder than as dressed pork. Many of the good-breeding sows in the country are fattened up and slaughtered just at the time they are coming to their best as breeders. An old sow tried and proven is more reliable than a young one untried. Older sows are usually better breeders than the very young sows.

Housing of the cattle is an important item in the economy of beef-production. The Farmer's Advocate and Home Journal of Winnipeg says: The almost universal complaint that there is no money in beef cattle is due to the fact that the most expensive means of rearing and housing the cattle is employed. Profit will be made not alone by increasing growth or feeding capacity but in cutting down the overhead charges.

Foot Rot in Sheep.

The first indication of foot rot is a certain degree of lameness in the animal. If he is caught and examined, the foot will be found hot and tender, the horn softer than usual, and there will be enlargement about the coronet, and a slight separation of the hoof from it, with portions of the horn worn away, and ulcers formed below, with a discharge of thin foetid matter. The ulcers, if neglected, continue to increase; they throw out fungous granulations, and separate the hoof more and more from the parts beneath, until at length it drops off.

All this is in consequence of soft and marshy pasture. The mountain or the down sheep, the sheep in whose walk there is no poachy ground, if he is not actually exposed to infection by means of the poisonous matter, knows nothing at all about it; it is in the yielding soil of the low country that all the mischief is done.

Before proceeding further it is necessary we should understand the composition of the foot which presents a structure and arrangement of parts well adapted to the natural habits of the animal. It is divided into two digits or toes, which are shod with a hoof, composed of different parts, similar in many respects to the hoof of a horse. Each hoof is principally composed of the crust or wall, and the sole. The crust extending along the outside of the foot, round the toe, and turning inwards, is continued about half way back between each toe on the inside. The sole fills the space of the inferior surface of the hoof between these parts of the crust, and being continued backwards becomes softer as it proceeds, assuming somewhat the structure of the substance of the frog in the foot of the horse, and performing at the same time similar functions. The whole hoof, too, is secreted from the vascular tissue underneath.

Now this diversity of structure is for particular purposes. The crust, like that in the hoof of the horse, being harder and tougher than the sole, keeps up a sharp edge on the outer margin, and is mainly intended to resist the wear and tear to which the foot of the animal is exposed. The soft pasturage on which the sheep is occasionally put presents little, if any, of that rough friction to which the feet of the animal is naturally intended to be exposed. The crust, therefore, grows unrestrained until it either laps over the sole, like the loose sole of an old shoe, and serves to retain and accumulate earth and filth, or is broken off in detached parts; in some cases exposing the quick, or opening new pores, into which particles of earth or sand force their way until, reaching the quick, an inflammation is set up, which, in its progress, alters or destroys the whole foot.

The finest and richest old pastures and lawns are particularly liable to give this disease, and so are soft, marshy, and luxuriant meadows. It exists to a greater or less extent in every situation that has a tendency to increase the growth of the hoofs without wearing them away.

Sheep that are bought from an upland range of pasturage are more particularly subjected to it. This is very easily accounted for. By means of the exercise which the animal was compelled to take on account of the scantier production of the upland pasture, and also in consequence of the

greater hardness of the ground, the hoof was worn down as fast as it grew; but on its moist and new habitation, the hoof not only continued to grow, but the rapidity of the growth was much increased, while the salutary friction, which kept the extension of the foot within bounds, was altogether removed. When the nails of the fingers or toes of the human being exceed their proper length they give him so much uneasiness to induce him to pare them, or if he neglects the operation they break. If he pares them after they have broken, the inconvenience soon ceases and the wound heals. When, however, the hoof of the sheep exceeds its natural length and thickness, the animal has no power to pare them down, but there long continues a wound, irritated, and induced to spread, by the exposure of its surface, and the introduction of foreign and annoying matter into it.

The different parts of the hoof, likewise deprived of their natural wear, grow out of their proper proportions. The crust, especially, grows too long; and the overgrown parts either break off in irregular rents, or by overshooting the sole allow small particles of sand and dirt to enter into the pores of the hoof. These particles soon reach the quick, and set up the inflammation already described and followed by all its destructive effects.

There is another circumstance which tends to produce disease in an overgrown hoof. The length to which the crust grows changes completely the proper bearing of the foot, for being extended forward, it takes the whole weight of the superincumbent parts. By the continual pressure on this lengthened part, inflammation cannot fail to commence. The progress of the disease is not equally rapid in every instance; sometimes it goes to a certain extent, and the foot to a considerable degree recovers. All the feet may not be equally affected; the fore-ones, however, are always the most liable to disease, on account of the additional weight which they carry. Sometimes there is only one foot affected, and that is sure to be a fore-one: sometimes only the hoof of one foot and occasionally one speedily heals while the other continues to get worse and worse.

In the first stage of the disease there is often found nothing but a little over-shooting of the edge of the crust, and which is bent in upon the sole, or the edge of the crust is forced asunder from the sole, and a wedge of earth is introduced which presses upon the sensitive substance beneath; but at other times the edge of the crust continues to grow until it envelops the whole of the sole. It is seldom that there is inflammation enough excited to throw off the whole hoof at once; but it separates at different parts, and at each part of separation there is a new horn formed; this, although soft and unhealthy, and not capable of sustaining pressure, covers, and to a certain degree, protects the sensitive parts beneath. By degrees, from increased and long continued irritation, the parts are no longer able to secrete even this weak horn, but small lumps of proud flesh sprout out, and then the work of destruction proceeds in earnest.

This is the usual progress of the disease, but at other times inflammation seems to be set up at once over the whole of that division of the foot; and there is considerable swelling about the coronet, matter is formed, it breaks out, sinuses or openings run in various directions, and the whole of the hoof is gradually detached. The upper part of the space between the hoofs becomes inflamed and swelled, the whole of the inner surface of the pasterns is sore and raw; ulceration commences, it eats deeply, spreads on every side and upwards—and the toes are separated from each other almost to the opening of the biflex canal. That canal becomes inflamed—proper inflammation of it is added to that of the sensitive parts beneath the hoof—the mucous follicles which it contains pour out a large quantity of tallowy matter, which flows over the fore part of the foot and between the hoofs, and assists in the accumulation of filth by its adhesiveness.

Professor Brow, an eminent Scottish agriculturist recommends a very effective caustic so-

lution made by mixing together equal parts of chloride of zinc and common hydrochloric acid. The diseased horn should be carefully cut away without bleeding; then the fungous growths are to be freely moistened with the caustic, after which a dressing of tar is sometimes best applied, though this is not considered absolutely necessary.

Paring and dressing require to be repeated at least once a week for a time. Where a large number of animals have to be dealt with, the method of driving them through a shallow trough in which a strong astringent solution is placed is sometimes adopted. Yet this is of no use if the feet are not cleaned and pared. The solution, which should not be more than one and a half inches deep in the trough, may consist of one pound of blue vitriol dissolved in one and one half gallons of water.

Whatever dressing is used the sheep should not be turned onto wet pasture or soft land immediately afterwards, but kept standing for a few hours in a dry yard or shed, the floor of which might be covered with lime or mortar. In addition to the treatment of the hoof itself, it is always well to give the following internally:

Common salt, one dram; sulphate of iron, half a dram; nitrate of potash, half a dram; mix and give once a day.

In serious cases where the deeper structures of the foot have become infected, the foot should be thoroughly cleaned and there should be inserted between the digits or claws, pieces of tow previously soaked in the dressing.

An old favorite dressing among English shepherds consists of sulphate of copper combined with turpentine and lard, the proportions being: sulphate of copper, 1 oz.; turpentine, 1 oz.; lard, half pound.

The sulphate of copper acts as an astringent, and restrains the formation of excessive granulations, which some folk call "proud flesh."

Foot rot is indirectly contagious. Any cases of lameness should straightway be looked into. G. T. BURROWS, England.

Some Disease Determinants.

Stock breeders and feeders must ever be on the alert to prevent disease, and occasions often arise where it is necessary to have considerable knowledge in order to be able to diagnose a case properly, and to determine its severity as well as to practice curative treatment. Hoard's Dairyman recently published a report by Dr. Chas. D. Folsie, of the Missouri Valley Veterinary Association meeting at which methods of determining some of the common troublesome diseases were fully discussed.

Demonstrations of the ophthalmic (eye test) and the intradermal tests for tuberculosis, diagnosis of hog cholera, the use of anti-hog cholera serum, and discussion of the so-called cornstalk disease, constituted the features of the meeting.

Interest centered in the tuberculin demonstrations, and it is probable the results obtained will mean that the intradermal method of testing will within a short time become the official method over the whole country, because of its simplicity and inexpensiveness.

As all stock owners know, the temperature method of tuberculin testing now in use entails the expenditure of about two days' time which occasions considerable burden to the stock owner, who is compelled to submit to it to ship stock interstate or across the border. Temperatures must be taken at three-hour periods for nine hours before the injection of the tuberculin. Beginning at the ninth hour after injection, temperatures must be taken at two hour periods until the twentieth hour. A difference of two degrees between the maximum temperature before injection, and the maximum temperature after injection constitutes a reaction or positive evidence of tuberculosis. From this it is readily seen the temperature test is burdensome and expensive.

The ophthalmic test consists in introducing a small quantity of tuberculin into the eye of the animal to be treated. This is accomplished by making a dilution or salve of it. Within eighteen hours afterward, if the animal be tubercular,



Ottawa Winners. First-prize pen of Oxfords, at Ottawa, 912. Owned by E. Barbour, Erin, Ont.

there appears a marked inflammation of the membrane of the eye and a characteristic discharge. If the animal be not tubercular there will be no disturbance whatever.

The intradermal test consists in injection into the loose folds of skin on one side of the tail a small quantity of tuberculin. The injection is made at the point named because the location offers opportunity for comparison with the opposite side. The injection must be made into the skin and not under it. If the animal be tubercular, within forty-eight hours after injection there will appear at the point of injection a well marked swelling of non-inflammatory nature, and the animal will display a characteristic switching of the tail. If the animal be not tubercular there will be no disturbance at all.

Fifty-eight head of cows were given the ophthalmic test, January 31st. Of that number thirty-three had previously been given the subcutaneous test. Six reacted to the ophthalmic test, but only two had reacted to the subcutaneous test. Post mortem examination showed lesions of tuberculosis in five of the reactors. Of the one which did not react, none showed any lesions. These results tend to indicate that some cases of tuberculosis may be detected by the ophthalmic method which may not be detected by the subcutaneous method, while on the other hand there is possibility of error in the results.

Forty-two head of cows were given the intradermal test January 30th, one of which reacted. Thirteen head of these cattle had previously been given the subcutaneous test, and the same animal had reacted. Post mortem examination disclosed ample evidence of tuberculosis. Of the animals which did not react, none showed any lesions. The results tend to indicate that the intradermal test is comparatively accurate.

Comparatively similar results were obtained from other experiments, and Dr. J. R. Mohler, Pathologist of the Bureau of Animal Industry, stated recently that if money could be had, extensive tests of the two methods would be made with a view of establishing one of them as the official government test. The state officials of Missouri have employed the intradermal test to about fifteen thousand cases recently with 98 per cent of correctness, and Dr. S. Sheldon, State Veterinarian of Missouri has stated that he believed the state of Missouri would make the test official in Missouri within a short time.

In speaking of the intradermal test Dr. J. H. Reed, Professor of Veterinary Science of the Ontario Agricultural College, to whom the foregoing was referred; says: "it is much less troublesome and less expensive than the hypodermic test, but it requires much greater skill and care in injection, and the symptoms carried in tubercular animals probably not so definite, at the same time to the skilled practitioner the symptoms are reasonably definite." Dr. Reed has never practiced this method, but has learned that the system is liable to cause an enlargement even in a healthy animal, but that it often appears earlier and subsides much more quickly than in a diseased animal. With the hypodermic method he has never known a healthy animal to react, but believes that in some cases from causes unknown a diseased animal will not react. "I do not think that any method is infallible but the hypodermic and I believe the intradermal methods make few mistakes," concludes Dr. Reed.

The meeting of the Veterinarians also discussed Hog Cholera and the serum treatment. Hogs suffering from cholera and those affected with plague were killed to illustrate the similarity of the lesions. It was also pointed out that worm affections of the bronchial tubes might be mistaken for cholera. Many of the ill results from the use of the serum are due to its administration in herds which have another disease than cholera, in which case no desirable results can be expected.

It was also pointed out that the serum is often used in too small doses, and the operator is often in too great a hurry to insure proper results.

The cornstalk disease has as yet no satisfactory treatment further than drastic bowel stimulants in the early stages, and change of feed immediately the disease appears. The mould on feed stuffs is believed to be in a measure responsible for the disease, but the mould is not disease-producing until certain chemical substances are present in the food itself. It was suggested that soil and climatic conditions may be responsible for the presence of this chemical substance in the food at certain times. It was also suggested that corn could very often be made safe by shelling and removing the mould by fanning.

Make Beef Rapidly.

When beef is furnished by calves suckled on their dams, they must be pushed rapidly ahead from the day of birth. During the nursing period they will take practically all the milk of the dam, except for a few weeks at the start, and they must be allowed to take the same for not less than six to seven months, or until the time comes for drying off the cow. If another calf of

good formation can be obtained of suitable age, the dam can suckle two calves quite well when the calves are given supplementary food, that is suitable from the time that they are able to take it. In any case supplementary food, such as oats and bran, should be fed as soon as they will eat the same. It is imperative that they shall be given food right along that will keep them growing rapidly, and that they shall be turned off at an early age, say between the ages of 12 and 24 months. These calves must be of good breeding and of the beef breeds, though not necessarily pure, and they must go to the market in high condition. The profit from them comes in great part from the high prices that are paid for them, because of the high quality of the beef.—Farmer's Advocate and Home Journal, Winnipeg.

Dual Purpose and Dairy Beef.

A few years ago a man who stated that dairy cattle could be used to supply beef for the table was laughed at, but the scarcity of the beef type is now beginning to be felt to such an extent that some of the type of calves which heretofore were slaughtered at birth or shortly after are being kept for baby beef. There seems to be no good reason why cows should not be used for the production of meat and milk. Prof. Shaw writing in the "Farmer's Advocate and Home Journal" Winnipeg, Man., describes the matter as follows:—

"Beef will be largely obtained from cows of the dual types, as the milking Shorthorn, the Red Poll and the Brown Swiss, and, in fact, from any cows of good frames where mated with a beef bull. As such cows milk freely but not so freely as the straight dairy cow, the milk is usually considered too valuable to be fed to calves in the whole or new form; it is fed to them as skim milk. If the proper adjuncts are given at the same time, these adjuncts will so force the calves along that they will be nearly as large and heavy at a given age as calves from straight beef dams. Beef thus grown will pay the farmer better than beef grown from beef cows that suckle their calves, but the element of labor must not be overlooked. A very large part of the beef supply of the future will come from this source. Fortunately, after the calves are two or three weeks old, skim milk with some oil meal will serve them about as well as new milk.

"Some beef will come from straight dairy sources. It was the custom in some dairy sections years ago to kill all, or nearly all, the male calves from straight dairy cows as soon as they were born. The sole object sought in such reproduction was to freshen the cows. The day is coming, however, and now is, when it will pay better to grow such calves into some kind of baby meat. If sired by beef sires they can be grown to a greater age with profit than when of straight dairy lineage on the side of both sire and dam.

"Calves of the latter type will sometimes be sold as veal when a few weeks old, but there will be more profit if they are sold at six to twelve months old. When thus grown the milk fed after two or three weeks may suffice almost as well as new milk, if the adjuncts are judiciously fed. These adjuncts may consist of various meals, but oil meal and corn meal are probably best adapted to produce that fat and plump condition in which they can take the market at a profit. As they grow away from the selling age named, they revert more and more to the dairy form. They lose that plumpness which heavy feeding will give to them as calves. When they are from beef sires they will retain the beef form for a much longer period."

THE FARM.

Will a Spreader Pay?

The season for the most frequent use of the manure spreader is approaching. Many farmers are debating the advisability of purchasing. Many doubt its economy on farms of less than 200 acres. All are aware of the great advantage in extra evenness of scattering manure with the spreader. Most farmers realize that a given amount of manure will cover a larger acreage when spread in this manner. The advantage is especially great on meadows where coarse bunches of straw are a nuisance in the hay crop.

Farm management investigations on a number of farms in Minnesota indicate that the spreader will make a financial profit on any farm which distributes 250 tons or more per year. This takes no account of the added ease of labor to the farmer, but considers only the financial saving and the fact that man-and-horse labor are enough, more effectively employed, to more than pay interest, repair and depreciation charges of the spreader. This amount of manure should be handled on farms of 160 acres or over, or on any

farm which has 22 cows, 16 head of young stock and eight horses or equivalent stock.—F. W. Peck, of Minnesota.

Alberta in the Lead at Lethbridge Dry Farming Congress.

Of the seven annual International Dry Farming Congresses so far held, that which was recently convened in Lethbridge, Alta., was in every way the most successful. Approximately 2,600 noted representatives were present from many of the States of the American Union, from Great Britain, Australia, South Africa, India, Persia, Italy, Holland, Germany, Hungary, Russia, Turkey, China and Mexico. Alberta led the list with 1,898 delegates. Saskatchewan had 111, British Columbia 93, Manitoba 44, Oklahoma 25 and Ontario 28. Delegates from these provinces, states and countries exchanged ideas, and did what they could to impress on the world that the methods needed practically all over the world are those urged by the Dry-Farming Congress—simply good and thorough farming.

The big congress was not the only record-breaker for the display of all kinds of products from the dry-farmed area was phenomenal.

Practically all crops from cotton or rice to corn and pumpkins were in evidence everywhere. Alberta carried off the lion's share of the awards, with Saskatchewan a close second in cereals. Henry Holmes of Raymond won the Sweepstakes award for bushel of wheat on a sample of Marquis, while R. H. Carter had similar honors with a sheaf of wheat on a bundle of the old standby, Red Fife.

Fifteen nations were represented, and good wishes came by telegram from many more. The officers elected are as follows:

International president, Hon. W. R. Motherwell, Minister of Agriculture for Saskatchewan; International vice-president, Dr. John Widstoe, Corresponding secretaries, British Columbia, W. E. Scott, Department of Agriculture, Victoria; Saskatchewan, A. F. Mantle, Department of Agriculture, Regina; Alberta, Geo. Harcourt, Department of Agriculture, Edmonton; Manitoba, Prof. S. A. Bedford, Department of Agriculture, Winnipeg.

Provincial and state vice-presidents were elected as follows: Manitoba, Dr. Hughes; Saskatchewan, Prof. J. A. Bracken, Saskatoon; Alberta, Hon. Duncan Marshall, Edmonton; British Columbia, Hon. H. Bostock, Victoria; Kansas, Prof. A. M. Jardine, Manhattan; Washington, Daniel Morgan, Spokane; Arizona, R. A. Fredericks, Prescott.

Even a brief survey of the long rows, huge banks and wall decorations of dry-farmed products at Lethbridge was an inspiration. A man with any love for farming could spend days to advantage, all the time becoming more anxious to produce something as good or better. It is difficult to particularize. Perhaps Marquis wheat was the sensation of the show. In the threshed grain class there were 42 samples. When the judges made preliminary examination they had held out 17 that were considered about perfect. A more scrutinizing examination reduced the number to 10. When all was over Raymond's unassuming farmer, Henry Holmes, was found to have won top honors. Later he won the sweepstakes award, a \$2,500 Rumely engine, offered for the best bushel of hard wheat at the show. In the final tussle he was hard pressed by the Red Fife sample shown by J. A. Johnston, of Woolchester, Alta., and by P. C. Hansen's (Pincher Creek, Alta.) Alberta Red. This latter was said to weigh 68 pounds to the measured bushel, being about two pounds heavier than the other prize samples. It was not as uniform as the others, and was not considered by the judges to be as high in milling value. For sheaf of hard wheat, the outfit offered by the Stewart Sheaf Loader Co., went to R. H. Carter, of Fort Qu'Appelle, Sask., on Red Fife.

In oats also there was keen competition. First prize in the class open to Canada including a gang of Oliver plows, went to Joseph Lanigan, of Elfros, while T. P. Conlan, of Moose Jaw, carried off the \$100 silver cup offered by the Continental Oil Co., for the best bushel of oats grown on land plowed, seeded, harvested and threshed with machinery using gasoline or oil fuel.

British Columbia carried off most of the big honors with a fine fruit exhibit. The commercial packages were particularly striking. The \$400 silver cup donated by the Manitoba Government was awarded to a B. C., and a Provincial sweepstakes on boxed fruit, and a sweepstakes for potatoes was won by the same Province, which captured one special, sixteen firsts, sixteen seconds and five thirds, getting a prize in every class in which they had an entry. In garden vegetables and field roots there was size and quality, with honors pretty well distributed over the Canadian provinces and the northern states.

In threshed grains and grasses Alberta took sixteen firsts, nine seconds, and three thirds; Saskatoon one first, three seconds, and seven thirds; Manitoba one third; Washington, two firsts and one second, and B. C., one second.

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In sheaf awards Alberta led with ten firsts, seven seconds and eight thirds; while Saskatchewan got one first, one second and three thirds; Manitoba one second, and one third, and Oregon State one first, and two seconds.

Of the special prizes Alberta took seven firsts, Saskatchewan five, Oregon State four, Washington State two, Oklahoma State two (cotton), Utah one, and Manitoba one (judging seed). And of the Grand Sweepstakes Alberta captured ten, Saskatchewan three, Oregon one, and B. C., one.

Judges entrusted with placing the cards were: W. C. McKillican, of Brandon; F. H. Reed, of Regina; G. C. Armstrong, of Winnipeg; M. Harshman, of Spokane; F. W. Edmonds, of Oklahoma; P. K. Blinn, of Colorado, and G. I. Lewis, of Oregon. Oklahoma was chosen as the meeting place of the Congress in 1913.

Sweet Clover.

Considerable is being written about sweet clover. Here is what the Ohio State College of Agriculture has to say about it.

"Sweet clover, a much condemned plant, is at last coming into its own. For years farmers have looked upon it as an obnoxious weed, and its native habitat has been neglected roadsides and waste land. Now agricultural science is beginning to see great possibilities in this plant. It is highly recommended as a green manuring crop, and in Kentucky and Illinois some farmers are growing it in the place of alfalfa as a feed for live-stock. Several of the experiment stations are making a study of its culture and use. There are two varieties of the sweet clover, or melilotus as it is rightly called, the white and yellow. The white makes a ranker growth, and is recommended for plowing under as a green manure, while the yellow is grown for forage. The farmers of the eastern and southern states are making the greatest use of this crop, especially for renovating wornout lands. One leading seed firm in Ohio reports that the demand for melilotus seed has increased 125 per cent. during the last year. The seed sells at the same price as alfalfa seed. It will grow on nearly any kind of land, and an average crop of seed is about ten bushels per acre. Professor V. H. Davis, of the College of Agriculture, Ohio State University, is growing white sweet clover as a cover crop in his orchards. The rank growth is mowed down and used as a mulch around the trees. Being a legume, nitrogen is added to the soil through the action of the bacteria growing on the roots of the plant, and the decay of the crop supplies large quantities of humus."

Prolonged wet weather seems to be the outstanding characteristic of the present season in North America and Britain. In Western Ontario it has been the worst summer for getting work done within the recollection of the oldest inhabitant. A wet seeding was followed by a drouth at the end of June, after which came four months of continued deluge, with only a few brief periods of fairly good weather in all that time. Threshing ran into silo-filling and silo-filling was nearly a month late. Not a few potatoes remained to be dug and apples to be picked when the first snow-storm ushered in November, while comparatively little fall-plowing had been accomplished.

Unhooking the tugs at dusk and starting the team towards the barn, the November plowman instinctively cons these lines from "The Cotter's Saturday Night":
"November chill blows lead wi' angry squalls;
The short ning winter-day is near a close;
The miry beasts retreating frae the plough;
The blackning trains o' craws to their repose;
The toil-worn cotter frae his labor goes,
This night his weekly moff is at an end,
Collects his spades, his mattock and his hoes,
Hoping the morn in ease and rest to spend,
And weary, o'er the moor, his course does
"hameward bend."

THE DAIRY

Type, Quality, Constitution, and Production.

Just which of these four is the strongest point, in connection with the dairy cow was rather difficult to glean from watching the judging of the different breeds at the National Dairy Show, recently held in Chicago, Ill. Almost invariably a cow lacking in the recognized type of her breed, was left outside the money, but occasionally one quite distinctly off in type, but showing constitution and great udder development worked her way to the top. Then in some of the breeds nothing but animals of the highest quality headed the list regardless of size and constitution. Of course type means to a certain extent quality. Then some classes were led by the big, robust kind, showing plenty of barrel and great heart girth,

with in some cases none too much indication of great productive qualities. Then there was what we call the extreme dairy type with very little in particular outside of a great udder, large, tortuous milk veins, pointed shoulders, open chine, etc. We must admit that it is rather confusing to follow closely the awards in the several breeds. All dairy cows, no matter what the breed, are kept for milk, therefore it would seem that those showing evidence of extremely heavy production should always go first. But a cow may be a phenomenal producer and yet not be strong enough constitutionally to be a great cow. There is a limit to forcing milk out of a strain of cows. Constitution must be considered or the dairy cattle of the future are sure to be so weak in this respect as to be poor producers. Strong constitution does not necessarily mean a coarse individual. An animal may have a fine head, and yet have a strong muzzle; she may have a good spring of rib, great heart girth and large barrel and still have a fine shoulder; she may be strong in the hind quarters and still carry a large, well-balanced udder, with nicely placed teats, to which lead long, large, tortuous veins. In short, it is possible to develop to a degree milking qualities, productive qualities and constitution, and to accomplish all without departing from the best types of our dairy breeds. Such a cow embodying all these qualities is scarce, but it is within the range of possibility to produce her. The point is that producing ability should not be sought at the expense of constitution. The judge of Holsteins at the show previously mentioned placed the strong animal up in most of the classes. In nearly every case these animals had quality and breed type, along with strong, robust bodies, and when it came to championships in each case the animal with constitution to back up production (which was clearly indicated in each case) took the blue. If breeders follow the system which he followed there is little danger of our dairy cows becoming weaklings.

A Big Alberta Milker.

Rosalind of Old Basing, the Jersey cow (out of an imported dam), illustrated in this issue, seems to have made a reputation for herself and a name for her owner, G. A. Julian Sharman, a plucky Englishman, who, at 27 years of age, without experience in farming, came to Canada some ten years ago and settled in Central Alberta. He went into dairying, building up a herd by rigid selection, and this particular cow has so distinguished herself in production, that the local Board of Trade some time ago gave a banquet in honor of her ladyship and owner. In a reported three-year test, recently completed, under the rules of the American Jersey Cattle Club, and directed by H. S. Pearson, Alberta Department of Agriculture, and authenticated by O. Marker, Dairy Commissioner, the following results were recorded:

Highest milk yield in one day, 52 lbs.
Highest milk yield in one month, 1,171 1/2 lbs.
Highest milk yield in one year, 15,700 lbs.
Average butter test, 5.16 per cent.
Butter in one year, 1,031.89 lbs.
Butter in three years, 2,504.29 lbs.
Milk in three years, 37,847 1/2 lbs.
Actual returns for cream and skim milk in three years, \$1,007.50.

This record for butter production, it is claimed, places Rosalind of Old Basing in the proud position of champion of the British Empire. Besides the very desirable revenue from the sale of Rosalind's production of milk as shown, she has produced three heifer calves, for which her owner has been offered and refused a high figure.

Rosalind's owner is a farmer of moderate means, whose sole source of income is his farm, and Rosalind, with the rest of his herd, was handled solely for profits, rather than for championship honors, the cow under test receiving exactly the same ration and treatment as the rest of the herd.

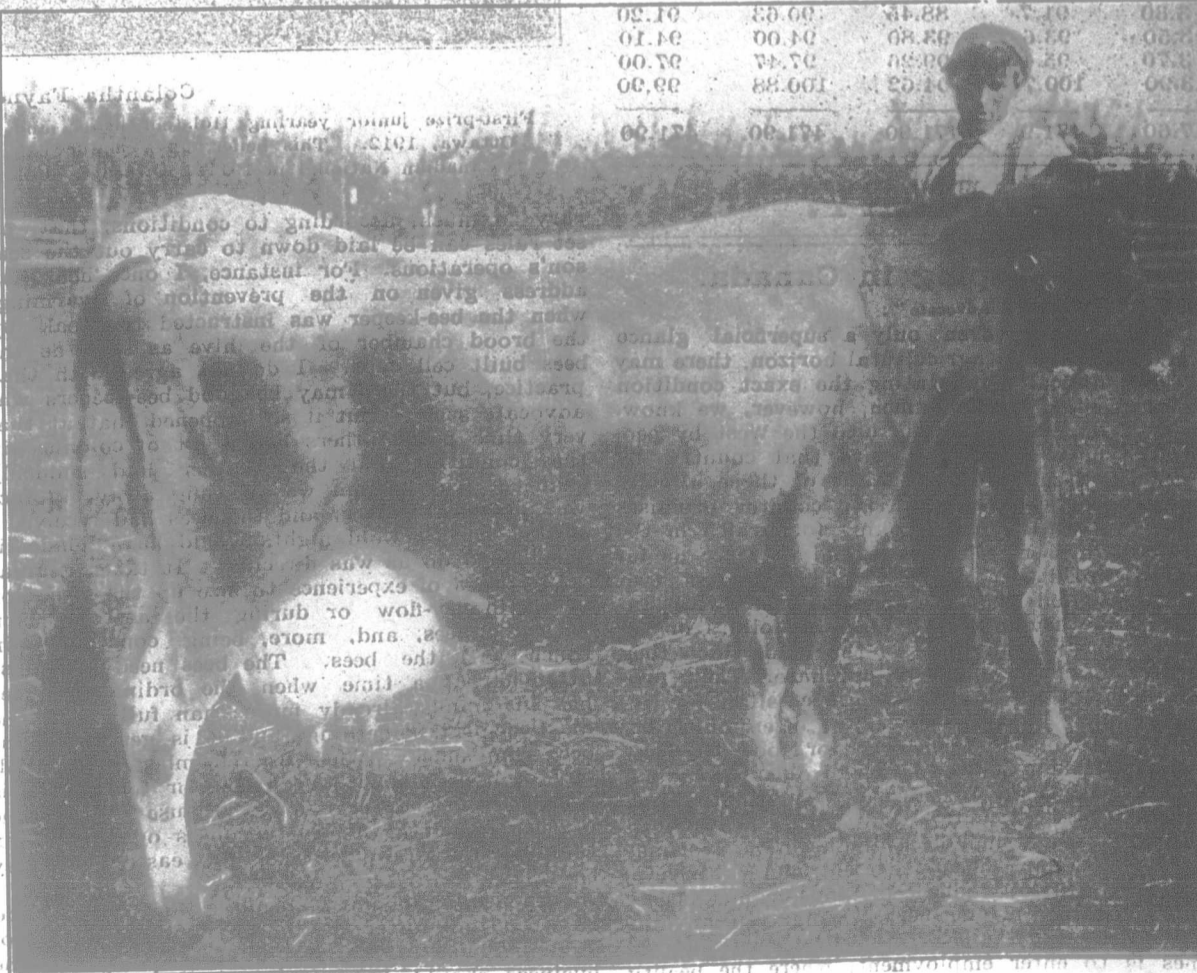
Milk Fat and Money.

Following some recent correspondence in these columns concerning Prof. Dean's well known plan of paying for cheese-factory milk on a basis of percent-of-fat-plus-two, readers will appreciate the subjoined paragraphs from a letter recently contributed by R. M. Ballantyne, of Montreal, to the New York Produce Review. Mr. Ballantyne was replying to a letter by J. H. Monrad in which the latter had attempted to clinch a criticism by asking how much the makers would get for a "real hard skim cheese." In reply to this point, Mr. Ballantyne asks what kind of a cheese fat alone would make. Proceeding, he discusses the subject in this sensible vein:

"The ground has been so frequently covered and the weight of cheese produced from different milk ascertained, so that it is not necessary to do more than repeat that milk containing different percentages of fat does not make weight of cheese in proportion to the percentage of fat; that, if a farmer is paid for fat alone, he is not paid directly for the weight of cheese made from his milk, but it then becomes a question whether cheese made from whole milk in which there is a smaller percentage of fat than that contained in other whole milk, would make a different or inferior quality of cheese. I believe I have the fullest opportunity of judging, and I contend that, so long as the cheese are made from the whole milk, it makes not the slightest difference in the value of cheese whether the milk contains 3 1/2 per cent. of fat or 4 per cent. of fat."

"In this country we have two provinces that are the large producers of cheese, the Provinces of Ontario and Quebec; and, with a very few exceptions, herds of cows in the Province of Quebec give milk containing a higher percentage of fat than the herds in the Province of Ontario; and, as 90 per cent. of the cheese produced in these provinces find their way through Montreal, we

Table with 5 columns of numerical data, likely representing milk production statistics.



Rosalind of Old Basing.

POOR COPY

have daily opportunity of examining them; and, though it is true that the cheese in the Province of Quebec are generally not so skillfully made as those of the Province of Ontario, it is also true that there are many first-class makers in this province; but I do not know of a single case where the cheese of the Province of Quebec, made as it is from milk containing a higher percentage of fat, would sell for more money than the cheese of the Province of Ontario. I may also say further that we have had during the past year the cheese of a factory in the Province of Ontario where the milk was divided into two vats, one containing the milk of Holstein cattle, and the other containing the milk of the patrons who did not have Holstein cattle. The difference in quality of milk contained in the vats varied, of course; but averaged something like 4 per cent. difference, and these cheese have shown to experts continuously throughout the season without in any case having the most expert judge decide that the cheese from the Holstein milk was in any way inferior to that made from the other milk; in fact, frequently the decision was that the cheese made from the Holstein milk was the better of the two.

"Now, if cheese made from the whole milk containing different percentages of fat, when made under similar conditions, and with equal skill, are salable at equal prices, then the farmer should be paid for the weight of cheese that his milk will make, and not for the weight of fat contained in it.

Mr. Monrad tries to make it appear that Professor Dean's contentions are erroneous, because they have not been more generally adopted by the cheese makers of Canada, but anyone closely in touch with the patrons of an old established cheese factory clearly understands the reason why, and it is simply because the largest and most progressive patrons of the factory have devoted themselves to large production of milk, instead of increased percentage of butter fat, and the largest and most influential patrons of the factory succeed in continuing the old method of paying for weight of milk alone without any reference to its percentage of fat. They cannot be ingored; therefore the system of paying for weight alone is continued. I enclose the result of some experiments that were made by J. A. Ruddick, which may be of interest to your readers, and which would show the result of the different systems. These figures of yield of cheese have been frequently confirmed by Professor Dean and other experts.

METHODS OF PAYING PATRONS OF CHEESE FACTORIES.

.. Taken from experiments made by J. A. Ruddick, at Perth, Ont.

Fat Content of Milk	Actual Yield of Cheese Per 1,000 lbs. Milk	Calculated Yield of Cheese Per 1,000 lbs. of Milk		
		From Fat %	From Fat + 2	From Fat + 3
3.20	90.5	85.77	88.92	89.70
3.30	91.7	88.45	90.63	91.20
3.50	93.6	93.80	94.00	94.10
3.70	95.4	99.26	97.47	97.00
3.90	100.7	104.62	100.88	99.90
17.60	471.9	471.90	471.90	471.90

APIARY.

Bee-keeping in Canada.

Editor "The Farmer's Advocate":
When we cast even only a superficial glance over the Canadian agricultural horizon, there may be some difficulty in stating the exact condition of bee-keeping. This much, however, we know. There is an immense influx into the West by people who have been lured into that country by either the results of the labor of those already there or the decision that the country promises to them what they are looking for, which in the majority of cases is comfort and affluence as far as this world can give it. They expect two things, a good crop, taking one year with another, and they expect to reap in dollars or assets the increase in value of the land which they homestead and pre-empt or purchase. Their produce is largely grain, and their necessities for living, or their desires, which are often much beyond this, compels them even for food to draw upon the produce of the farms of older Canada.

I have no desire to enter into any controversy over this matter; more, I will not be drawn into it, but it is my humble opinion, in my estimation based upon sober judgment and experience, that the Ontario producer of foods is in a measure, a considerable measure, reaping the advantage of this demand. Also that the spirit of the times is to enter employment, where the beauty of hands is not marred by the evidences of manual

labor, forgetting or not knowing that the decree, "In the sweat of thy face shalt thou eat bread," cannot be ignored without its consequences to individuals, and still more to families if it is continued from generation to generation. As far as actual physical enjoyment goes, the individual who enjoys food, rest and shelter to the full, is the one who knows what hunger, toil and exposure to elements is. But the far-off view of the city is fair indeed, and it is only when we can see beneath the surface of city life that we find less to value in it.

With the spirit of the times there is every likelihood that the production of farm produce is going to be an attractive proposition for Ontario at least, and if a financial exigency should arrive the farmer then is always the man in the best position, for he can produce his own food.

Coming to bee-keeping, the prices at present paid for honey makes this industry an attractive proposition. The demand for honey in Canada is quite equal to the production. Again, bees are well known to be very important agents in the pollination of blossoms, from which come fruit and seed of value to the farmer. This question need not be enlarged upon here. But why is it that so many have gone into bee-keeping and made a failure of the business? When we look over sections of country where years ago dozens of men kept bees we often find none or very few in the business now.

Bee-keeping is a business requiring skill, intelligence and application. Successful and extensive bee-keepers are not made at colleges and schools, but by coming in contact with the practical operations of the apiary on an extensive scale. The theory of bee-keeping is only a step in its mastery. The lines of operation

seasons, very profitable seasons, but some of us who have been in the business over thirty years, yes, and a much shorter time, testify that there are unprofitable seasons, seasons where not enough is got out of bee-keeping to even make a bare living.

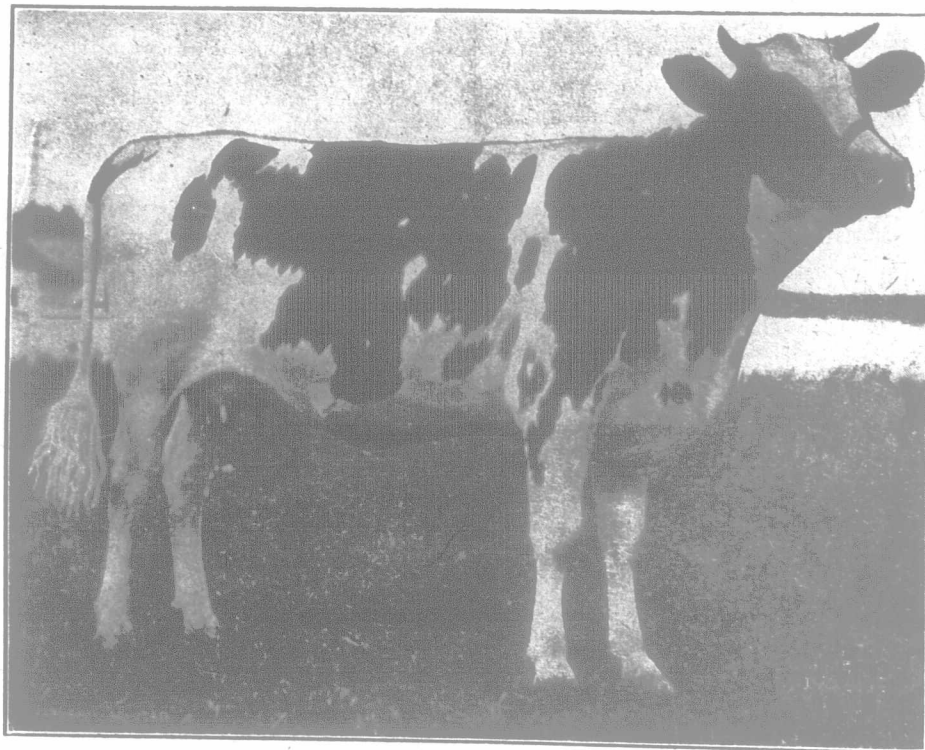
FOUL BROOD.

Then there is European and American foul brood. The former is a new disease in Canada. It has been predicted by experts that it will sweep the entire country. From near Trenton it has swept into the Ottawa Valley, it is in Quebec, and it has obtained a foothold in Niagara Peninsula. Anyone doubting my statements need only look at the Annual Report of the Ontario Bee-Keepers' Association to find material which will more than verify them. Just now, it seems to me, to advise men either in Ontario or Quebec to go into bee-keeping, is like advising a man to go into hog-production with an outbreak of hog cholera in the vicinity—only far worse.

Bees can carry the germs of the disease home long distances. In that sense foul brood has wings. We are told that the reason why this disease is not followed up better and stamped out more effectually is because the Province cannot supply more money for the purpose. I shall let the public judge as to the need and wisdom of such a policy, and whether it is wise to seek to develop, at expense, the industry, on the one hand, and allow those already in it to be wiped out, on the other, for lack of funds.

I had one young man from England, one from West Virginia, and another from Ohio, studying bee-keeping with me this summer. There is felt more and more the realization of the need of experience and adequate information upon this line of agriculture, but it will not be a safe industry, especially for the comparatively inexperienced, until more effort is made to stamp out these two dread diseases.

This autumn I was twice in Quebec Province. I was for a considerable time in the presence of two of Quebec's foul-brood inspectors, and secured what information I could about the condition there, and foul brood has destroyed many apiaries there. For my own part, I have said for years foul brood appears to be the only animal disease of a contagious nature which the Dominion Government does not see to the stamping out thereof. Why has it not long ago contributed to the cost of its eradication?
Brant Co., Ont. R. F. HOLTERMANN.



Colantha Fayne (17152).

First-prize junior yearling Holstein heifer, and champion female of the breed, at Ottawa, 1912. This heifer, as a junior calf, was junior champion at the Canadian National in 1911. Owned by Colony Farm, Mt. Coquitlam, B.C.

vary so much, according to conditions, that no set rules can be laid down to carry out the season's operations. For instance, I once heard an address given on the prevention of swarming, when the bee-keeper was instructed to break up the brood chamber of the hive as soon as the bees built cell cups. I do not agree with that practice, but there may be good bee-keepers who advocate such. But it so happened that at that very time I and others had a lot of colonies in that condition, but the weather had suddenly changed, fruit bloom was passing away, in fact was practically over, and the bees had received a severe check. Cold nights would have made it suicidal to do as was directed. It takes a great many years of experience to size up the situation in the honey-flow or during the active season with the bees, and, more, being constantly in touch with the bees. The bees need the most attention at a time when the ordinary farmer has his hands already more than full, when he must neglect something, and it is generally the bees who suffer. When we remember that a colony of bees left without queen for ten weeks is practically a ruined colony, because the lifetime of the bee in the active season is only some six to eight weeks, we will see how easily bees may be lost.

Bee-keeping is not a business for a farmer to have to look after with 100 or more acres of land. Those who are invited to engage in the business should have its advantages and disadvantages put before them fairly. There are good

the stamping out thereof. Why has it not long ago contributed to the cost of its eradication?
Brant Co., Ont. R. F. HOLTERMANN.

POULTRY.

Few Breeds Best.

An English journal, discussing the best breeds of poultry, says: "So far as breeds are concerned, this question requires the most careful consideration. It is not what managers or instructors like, but that which is most suited to the district. We recently heard of a poultry manager at a Government farm buying a lot of Aseel fowls, because, we suppose, he fancied them. Such a man is unfit for his position in that he makes his own fancy the dominant factor. As a rule, a couple of breeds of fowls, one of ducks, geese and turkeys, whichever of the last named are kept, will be enough. Better have too few than too many breeds. At some centres (experiment stations) one will be sufficient. We do not want a permanent poultry zoo, but to improve and disseminate birds of practical value, to teach and demonstrate the best methods."

Keep the pullets growing. Give them variety in diet, a bright, well-ventilated pen, and feed the whole grain in the straw to insure their taking exercise.

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Feeding the Show Bird.

Leo J. Brosemer, writing on fitting birds for show, says under the sub-heading, The snow bird's training table:

Always feed a variety of foods and often. The wet mash should be well made, mixed with skim milk. A crumbly mash will be relished for the early morning feed when quick digestion is wanted, this followed by a little grain later on throughout the day, varying the food from time to time and always being guided by the likes and dislikes of the fowls you are fitting. It will be a good plan to mix a small quantity of linseed meal with the mash feed of colored varieties, a little each day makes the feathers glossy and lustrous, and is also a good tonic for the system.

In addition to the regular diet of grains and soft feed, a little raw meat and ground bone will help keep their appetites on edge if not fed in excess. It keeps them vigorous and reddens their combs and wattles. Green food, such as sprouted oats, cabbage, turnips or mangolds, grit, bone and charcoal are also necessary to obtain that "bloom" on your show birds.

Each bird should be weighed once a week and the record kept. If for any cause your birds do not gain in weight rapidly enough, it will be found an advantage to add one-half teaspoonful of brown sugar (per bird) to the mash. This causes them to take on flesh more rapidly, but should be fed with care. Cornbread soaked in milk, or hard-boiled eggs will answer the purpose of meat and ground bone if your males show a tendency to develop too large combs and will not endanger the condition of the birds.

The breed of fowls best suited for any farm depends upon the purpose for which poultry is kept. If eggs are to be the sole end of profit, then get an egg-producing breed, and endeavor to get a good strain of that breed. If a fair egg-production, combined with good meat qualities, is desired, select the general-purpose fowl. On the average farm the general-purpose breeds may be found most satisfactory, and their absence of large combs, such as many of the egg breeds have, gives them the advantage in cold weather.

If for any reason the molt has been delayed until late, be sure to keep the fowls warm.

GARDEN & ORCHARD

Dynamiting Tree Sites.

Editor "The Farmer's Advocate":

On May 23rd, 1912, a demonstration on the use of a low-grade dynamite or stumping powder, was held on the Horticultural Experiment Station Farm at Jordan Harbor, Ont., for the purpose of subsoiling in an old apple orchard, making holes for the planting of trees, and for blasting old stumps.

The work was done by J. B. Moriarty, on behalf of the Canadian Explosives Ltd. For the subsoiling, we took a row of trees across the old orchard and put in three rows of charges—one row in the line of the trees, and one row on each side about fifteen feet from the line of trees. The holes were made by a pointed steel bar, and were made about thirty inches deep. There are augurs made for the purpose of making holes, but where the bar can be used the work is done much more quickly. Half-pound cartridges were cut in two for this work, and one piece was used in each hole, making the cost about six and a half cents including dynamite, explosive cap and fuse. For making holes for planting trees the same amount of explosive was used; the holes were made in the same manner and same depth.

Care must be taken in tamping the soil in the holes after the explosive has been placed. If there is not enough soil used or if it is not tamped enough, it will blow out a small hole and the desired end has not been accomplished; but when the work has been properly done, the soil will be loosened from one to two feet below the original hole, and loosened for a radius of from two to three feet, making it necessary to take out considerable of the subsoil and replace it with surface soil.

We have in this test eighteen trees planted on heavy soil, six apple, six pear, and six plum. Alongside of these, we have the same number planted in dug holes, and the same number autumn-planted in dug holes. The trees were prepared from the same nursery and from the same row in that nursery. Cannot report any material difference in the season's growth, except that the autumn-planted trees started a little earlier in the spring and kept the lead all season.

The cost of material used in making holes for planting trees will be—dynamite, three and a half cents; fuse, two cents; cap, one cent; total, about six and a half cents per tree.

BLASTING STUMP.

A green basswood stump about two feet in diameter was blown out and the job was complete. The augur was used in making the hole which was started back a little from the stump, and the hole put well down in the earth and well under the stump, and the clay or earth on top of dynamite was well tamped. The amount of explosive used on this stump was nine sticks, costing sixty-three cents; fuse, about three feet, costing two cents; cap, one cent; total cost, sixty-six cents and the work was complete.

The soil, where the explosive was used for planting trees, is clay with a very heavy, tough, red clay subsoil, and on examining the hole after the explosion, it was found to be well broken up and loosened, but to make it right to plant the trees it was necessary to throw out some of this red clay and fill in with surface soil. At the present time I am not prepared to say anything for or against the explosive as a means of subsoiling or for planting trees, but for clearing land of stumps it is excellent.

The dynamite used was a low grade about 20%, costing about \$7.00 per case of fifty pounds, fuse sixty cents per 100 feet, and caps \$1.00 per hundred.

Care must be used in the handling of this explosive, especially after the cap is in position.

A. D. HARKNESS
Superintendent.

Nova Scotia Regulates Nursery Trade.

The Government of Nova Scotia has passed a strict order-in-council under the provisions of the Injurious Pest and Plant Disease Act, 1911, practically excluding Canadian-grown nursery stock from importation into that Province until the nurseries from which it comes are, by competent officials, declared free from dangerous insect pests and plant diseases. Even then such stock can only be imported at certain places, certain times and subject to certain conditions. The new regulations apply only to interprovincial trade, international trade being under regulations issued by the Department of Agriculture at Ottawa.

We reprint the more important clauses, omitting No. 3, which refers to transportation companies:

2. No imported nursery stock shall be delivered to any importer or consignee within the Province of Nova Scotia unless the same is accompanied by a certificate signed by such Provincial Entomologist or other authorized Government officer as is approved by the Secretary for Agriculture that the nursery or other premises on which the same was grown was inspected within the period between the fifteenth day of June and the fifteenth day of September next preceding the shipment thereof, and that said nursery or other premises were found to be apparently free from San Jose scale and such other plant diseases, insects and pests as have been declared to be injurious to vegetation by the Governor-in-Council under the provisions of "The Injurious Insect Pest and Plant Disease Act, 1911," provided that any importation of nursery stock which has complied with the Regulations of the Department of Agriculture of Canada shall be exempted from the provisions of these Regulations.

2. Every person who imports nursery stock shall give notice to the Provincial Entomologist, Agricultural College, Truro, within five days of giving the order for the same, and shall again notify the Provincial Entomologist on the arrival of the shipment in Nova Scotia. Notice shall also be given to the Provincial Entomologist by every common carrier, express company or other person, firm or corporation bringing nursery stock into Nova Scotia for delivery within the Province immediately such nursery stock is received. Such notice shall include the name of the consignor and consignee, the points of origin and destination, the name of the company or person carrying the nursery stock, as well as the nature, quantity and origin of the same.

5. (1) No nursery stock shall be brought into Nova Scotia for delivery within the Province except at or through the ports and during the periods respectively hereinafter mentioned; that is to say:

Middleton, Annapolis County, from March 15th to May 15th, and from October 7th to December 7th;

Truro, Colchester County, from March 15th to May 15th, and from October 7th to December 7th;

and at such other ports during such periods as may from time to time be prescribed by the Secretary for Agriculture.

The Secretary for Agriculture may prescribe, for the purposes of this Regulation, any port at which the use of a Dominion fumigation station is available:

(2) At the ports hereinbefore mentioned all importations of nursery stock shall be inspected and fumigated in the fumigation house provided for that purpose, and a certificate of fumigation

will be issued by the Provincial Entomologist.

(3) Importations by mail shall be subject to the same Regulations.

6. There shall be clearly marked or otherwise indicated on every package of nursery stock intended for delivery within the Province of Nova Scotia the port at or through which such nursery stock is to be brought, and all shipments of nursery stock shall be entirely at the risk of shippers or consignees, the Government assuming no responsibility whatever.

7. If, on inspection, nursery stock or other vegetation or vegetable matter is found to be infected with San Jose scale or any of the plant diseases, insects and pests as have been, or may hereafter be, declared to be injurious to vegetation by the Governor-in-Council, under the provisions of "The Injurious Insect Pest and Plant Disease Act, 1911," such nursery stock shall be destroyed to the extent deemed necessary by the Inspector, and in his presence, or, if required by the consignee, shipped out of the Province at the expense of the consignee. All cases, packages and packing in which such nursery stock has been contained shall also be destroyed in the same manner.

Seedling Apples and Crab.

R. A. Marrison, Frontenac Co., Ont., sends The Farmer's Advocate samples of a seedling crab apple which he has produced, and has named the "Phenomenal." The samples received are about double the size of ordinary crabs and some specimens still larger. One side is a light red, and the other yellow with light dots, but Mr. Marrison says with more sunshine the whole fruit would be red with streaks or splashes. Half a dozen of the specimens were turned over to one of our readers, a capable housekeeping expert, for trial, and her report is very favorable. The large size is regarded as a decided advantage, there being less waste of skin and core, which make up a great part of small varieties. Preserved or cooked with a syrup in the usual way, the texture or grain was fine, flavor rich and delicate, and the color of the preserve and jelly a clear golden, said to be superior to that of the



Two Standard Seedlings.

On the left a dessert apple, and on the right a winter variety called Frontenac. Reduced in each case to exactly one-half diameter of photographed specimen.

Transcendent or Hyslop. Several persons who sampled them on the table certify to the excellence of the quality as reported. The thinness of skin, where left on in the preserve, was also mentioned.

Mr. Marrison also sends The Farmer's Advocate samples of two others of his seedlings, a winter apple named "Frontenac," and a dessert apple, "Red Rose," neither of them, he explains, properly colored. The former should be nearly covered with red and darker streaks. The



The "Phenomenal" Crab.

Reproduced from a photograph of the largest and smallest crabs that grew on the tree here. Reduced to exactly one-half diameter.

other should be very dark all over, with red flesh. The engravings, half natural diameter (which is, of course, much less than half size), will give some idea of the appearance of the fruit, concerning which Prof. Crew, of the Ontario Agricultural College, expresses opinion as follows:

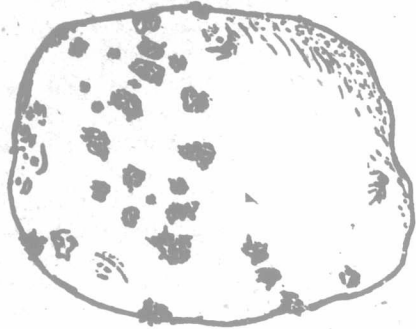
"The apple called Frontenac is attractive in appearance, but is not yet mature enough for us to judge of its quality. I should like to see specimens later on in the season.

"The apple called Red Rose is attractive in exterior appearance and of unusually good flavor. I doubt, however, if the pink flesh would be an advantage on the market. Personally, I should consider it a drawback."

Another Potato Scab.

The line-drawing below is made from a potato received from Mr. Gussow, Dominion Botanist, Experimental Farm, Ottawa. It is intended to illustrate the European potato disease called Corky Scab, an affection not hitherto known to exist in this country.

While bearing a resemblance to the common scab—*Oospora scabies*—this disease, judging from the naked-eye observation of the specimen, differs



Corky Scab of Potatoes.

in the generally smaller and more pustular form of its roundish, thin, spongy spots bordered by shreds of the cuticle.

It would be interesting to know how widely this scab is distributed. People who have potatoes which, from the description given here, might be suspected of being infected should send a specimen to Mr. Gussow. J. D.

THE FARM BULLETIN.

The Winter's Food.

By Peter McArthur.

We have now reached that part of the harvest which I most thoroughly understand and enjoy. Earlier in the season we changed work with the horses, so as to provide the food needed for them and the cattle during the winter, and the surplus was sold for "rascal counters," with which we can get the things not grown on the farm that we need for ourselves. Now, however, we are putting away that part of the produce which we shall need for home consumption. Apples are being stored, potatoes pitted, celery and cabbage trenched and other vegetables protected for the winter. I say that I understand this part of the harvest better than the other and I'll tell you why. We are all the time being told to go to the ant for an example of wisdom. Well—one time I went, and I am afraid that the lesson I learned was one that my teachers did not intend. Instead of having money invested in bonds or a good bank account, the ant simply had a plentiful store of provisions. As I put away these vegetables I have a comfortable feeling that I have learned the lesson of the ant as it was intended to be taught. Food is the most important form of wealth and to have a plentiful supply stored away is the highest form of wisdom. In more primitive times the wealth of kings consisted of full granaries and countless herds, and they were considered rich because they had ample food for themselves and all who were dependent on them. I suppose if I sold the celery, which is a somewhat costly luxury in the cities, I could put money in the bank, but I am fond of celery, and the wisdom of the ant is good enough for me. There is no knowing what may happen to the banks when the Bank Act comes up for revision, but I feel moderately secure regarding the vegetables.

Speaking of celery, there is one thing I should like to know, and perhaps some gardener who reads *The Farmer's Advocate* can tell me. I have no doubt that the trouble is due to some mistake I have made, but I wish to be set right, so that I can do better next year. When trenching the celery I found that part of it had grown very rank, and was so pithy that it is practical-

ly useless. The celery was grown in an old barnyard, where the ground was just about as rich as it could possibly be, having been used as a barnyard since the land was first cleared. I am inclined to think that this is about the first crop ever raised on this bit of soil, and that the original fertility is still there, as well as what has been accumulating during the past seventy years. Most of the celery is just about as fine as it could possibly be, large stalks, crisp and tender and as sweet as a nut. Besides, the stalks are about the largest I have ever seen, but some of the very largest are almost useless. What is the trouble? Has the growth been too rank or have I neglected something that should be done? Most of the trouble is with the Giant Golden Heart variety. The White Plume is all firm and sound, and both kinds were cultivated in the same way. Should I have treated the two kinds differently?

Two correspondents have asked me to give in *The Farmer's Advocate* the receipts for Force Meat and Dried Beef, which I described in an article elsewhere about a year ago. We prepared the dried beef, which proved to be excellent, according to the following receipt:

"Take the best of beef, or that part which will be the most lean and tender. The tender part of the round is a very good piece. For every twenty pounds of beef use one pint of salt, one teaspoonful of salt petre and a quarter of a pound of brown sugar. Mix them well together and rub the beef well with one-third of the mixture for three successive days. Let it lie in the liquor it makes for six days, then hang up to dry. A large crock or jar is a good vessel to prepare the meat in before drying it."

This dried beef is good either when cut in thin slices and fried or made up in the various ways in which "chipped beef" is used.

The force meat I had reference to is an old-fashioned country dish, and not the kind that usually goes under that name in the cook books. It strikes me as being more like pemmican than anything else. Take any convenient quantity of lean beef. The better the cut, the better the result will be, but any part may be used from porter-house steak to the neck. Chop this beef as finely as possible with a chopping-knife, but do not put it through a meat-chopper. Take about one-third the amount of suet and chop it in the same way, then mix the two and add salt and pepper to taste. When the beef and suet have been thoroughly mixed and flavored, press it into small cakes by hand and put it away in a crock. It is ready to use at once, and is fried like steak. If there is any better eating for cold weather I have yet to find it. This is a truly pioneer dish and one of the best. Some day I may gather and put in shape the pioneer receipts that I have come across while gathering information about the first settlers. Quite a number of the dishes they used are no longer in vogue, but most of them that I have sampled have been good, though rather strong food for palates that are trained to sweets and delicacies.

Besides the programme for good eating that I have given, I wish to suggest something for solid thinking during the winter months. There are some good points about the relations of capital and labor that the producers of the country might profitably grapple with now that the Bank Act is coming up for revision, and the financial system of the country is likely to be reviewed. Wealth is universally admitted to be the valuable products of labor, and here is about the most widely accepted definition of it that has yet been given:

"Wealth or objects possessing value are those things, and those things only, which are transferable, are limited in supply and are directly or indirectly productive of pleasure or preventive of pain."

Broadly speaking, the mass of these things is made up of the food materials and the materials for shelter and clothing produced on the farms and perfected by labor. Money, on the other hand, is simply an accepted medium of exchange which may or may not have intrinsic value of its own. Gold has intrinsic value, but instead of using it we use the "promises to pay" of the banks, which are nothing more than slips of printed paper. For these slips of paper we exchange the true materials of wealth, and right here there is a peculiarity that is quite significant. If I own a hundred barrels of apples they constitute true wealth, but while I own them they cannot earn any more wealth for me except such as comes from increased prices, if there should be a scarcity. If I keep this real wealth in my own possession, it will soon go back in value, and within a year would all decay unless I change for them a hundred dollars in currency, in little paper slips, which are used merely as a medium of exchange. I can lend that hundred

dollars at interest, and it will at once begin to earn for me. I confess that I am puzzled by the fact that the mere counters that are used in exchanging wealth are more valuable to own than the wealth itself. Shylock said that he could make his ducats breed as fast as sheep, but it seems to me that there is something wrong when this is the case. The men who get rich nowadays are not the producers of wealth, but those who handle and speculate with the medium of exchange, the money that has no intrinsic value. All the great teachers of the past were opposed to allowing money to accumulate interest. The taking of interest has been forbidden by the world's best religious teachers, and perhaps if we investigated we would find that there is an economic principle involved as well as a religious principle. The laws of cleanliness enforced by Moses have been entirely justified by scientific research, and they are now being enforced as sanitary laws. Perhaps when we study out the true relation that should exist between the products that constitute true wealth and the money which is used in making exchanges easy we shall find that the money should be controlled and its power restricted in a way that will make it impossible for the owners of capital to control and exploit the producers of true wealth as they are doing now. Capitalism, as we have to deal with it, is an entirely modern thing, and nothing about it is too sacred for investigation. In earlier ages, when gold and silver were the popular mediums of exchange, they were marketable commodities, just like wheat or beef, but slips of paper with promises to pay printed on them are not a commodity. They are purely a medium of exchange, and their use should not give too great a power to the men who handle them in the transaction of business. I am not sure that I have even stated the problem properly, but I am sure there is something there worth thinking about. If we all grope for the truth involved we may find it and perhaps do something to check the strange and oppressive dominance of capital in modern life.

Remove Duty on Traction Ditchers.

Editor "The Farmer's Advocate":

Some time ago you published a timely editorial on the subject of the removal of the duty from traction ditchers. For about two years the Department of Physics, of which I have charge, has been working upon this matter, first enlisting the sympathy and assistance of prominent and influential public men in several provinces, also of the Canadian Manufacturers' Association, and then making representations upon the subject, both directly and through said public men, to the Ministers of Agriculture, Customs and Finance at Ottawa. These representations were made to both the late and the present Government, so that the departments interested are now in possession of considerable information relative to the proposed action. Thus far nothing has been done, but there is reason to hope that the proposal is meeting with sympathetic consideration.

The purpose of this letter is to draw attention to a phase of the subject recently brought to my attention, viz., the fact that some farmers' organizations, e.g. Farmers' Clubs, Agricultural Societies, Farmers, Institutes, etc., have already passed resolutions asking for the removal of the duty, and others have such action in contemplation. This step seems to me a valuable one, possibly the one remaining step necessary to secure the desired action.

I have been asked by one society to draft a suitable resolution, and thinking that the same might prove suggestive to other societies which may be contemplating similar action, I beg to give it here:

"Moved by.....

Seconded by.....

"That whereas large areas of land in this vicinity are in urgent need of underdrainage.

And whereas we as farmers have this year, and for many years, lost heavily by portions of our farms being too wet.

"And whereas owing to the scarcity of hand labor it is practically impossible for us to secure help to lay the drains.

"And whereas the traction ditcher if introduced into this locality would solve the difficulty.

"And whereas traction ditchers are not manufactured in Canada.

"And whereas the duty, which is 27½ per cent., amounts to from \$500 to \$750 on a machine suitable for this locality, depending on the size of machine.

"And whereas a sum of this magnitude in addition to the cash payment on the machine is prohibitive to many men considering the purchase of one of these machines.

"And whereas this prohibition is a direct monetary loss to us as long as we are unable to get our drains put in.

"And whereas the late Manager of the Tariff

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Committee of the Canadian Manufacturers' Association has stated that the number of these machines required in Canada would not warrant any factory starting to build them as a specialty, and therefore it would not be detrimental to any Canadian industry if they were made free of duty, and that therefore the said Manufacturers' Association will not oppose the removal of the duty.

"Therefore be it resolved. That we, members of the (Name of Society) at (Post Office) in the Township of County of in meeting assembled, hereby place ourselves on record emphatically and unanimously, as favoring the removal of the duty from traction ditchers and parts thereof.

"That we hereby respectfully urge upon the Honorable the Minister of Customs that the said duty be removed at as early a date as possible.

"And further, that the Honorable the Minister of Agriculture for the Dominion be hereby respectfully asked to support the suggestion for the removal of the said duty.

"And further, that the Member of Parliament for this riding be hereby respectfully asked to use his best endeavors to secure the removal of the said duty.

"And that the Secretary be hereby instructed to send copies of this resolution to the Honorable the Ministers of Customs, Agriculture and Finance at Ottawa, and the Member of the Dominion Parliament for this riding."

This outline, of course, is only suggestive and might be abbreviated or otherwise modified to suit the wishes of the local organizations.

Perhaps a word of explanation is in order regarding the reference to the Canadian Manufacturers' Association. When the matter was brought to their notice it was referred to their Tariff Committee, which after consideration and advising with some manufacturers whom I know, arrived at the conclusions already attributed to the late Chairman of the Tariff Committee. The letter containing those conclusions and the assurance that the Manufacturers' Association would not oppose the removal of the duty on traction ditchers is on file in this department. I think the association is entitled to credit for the stand it has taken.

It may be well to state before leaving the subject that my first endeavors to secure cheaper ditchers for the Canadian market were directed towards having them manufactured in Canada, and those efforts have been continued to the present time. I know there is a sharp difference of opinion as to whether this would secure any material reduction in price, if the duty were maintained at the present level, but this point does not enter into the situation at the present juncture. The facts are that after four years of endeavor along this line these machines are still not manufactured in Canada, and the farming community is suffering annually a heavy direct loss without any compensating gain to any other class of citizens. Under these circumstances there seems to be no valid reason, indeed not even a plausible excuse, for maintaining the duty on traction ditchers.

It is to be hoped that The Farmer's Advocate and the agricultural press generally will continue the campaign until the duty is removed.

WM. H. DAY.

Egg Laying Contest at Vancouver, B. C.

The results have been issued of the international egg-laying contest, under the joint auspices of the British Columbia Poultry Association, the Vancouver Exhibition Board and the British Columbia Provincial Government. The total number of eggs laid in Class No. 1 from Oct. 20, 1911, to Oct. 20, 1912, by pen No. 2, White Leghorns, winning first prize, owned by J. Stewart, of Australia, was 971; pen No. 9, White Leghorns, owned by Ranguru Egg Farm, New Zealand, second prize, 916 eggs; pen No. 10, White Leghorns, owned by Dr. Medd, British Columbia, third prize, 800; pen No. 19, White Leghorns, E. T. Hunson, British Columbia, fourth prize, 795; pen No. 18, White Leghorns, owned by E. Soole, British Columbia, fifth prize, 778; and pen No. 20, White Leghorns, owned by Major Green Wilkinson, British Columbia, sixth prize, 745. The winners in Class No. 2 were as follows: First, Rhode Island Reds, A. E. Smith, British Columbia, 854 eggs; second, White Wyandottes, G. Adams, British Columbia, 804 eggs; third, Rhode Island Reds, J. J. Dougan, British Columbia, 800 eggs; fourth, Barred Rocks, V. Cleenes, British Columbia, 778; fifth, Rhode Island Reds, Red Feather Poultry Ranch, British Columbia, 732; sixth, Barred Rocks, Fred Matthews, British Columbia, 730. Two silver medals, presented for pens in Class 1 and Class 2 producing most eggs during winter months, were won by pen 2, J. Stewart, Australia, in Class 1, and by pen 39, Buff Orpingtons, C. W. Robbins, British Columbia, in Class 2.

Relation of Roads to Agricultural Conditions.

Much has been written during recent years about the value of good roads, and the agitation for better roads must continue. It is only necessary to take a drive through the country to appreciate what might be accomplished. From a piece of good crushed stone or gravel road to the old mud road is a short journey in most localities, and the difference in power required to move a load on these different classes of roads is quite perceptible to the driver, but it is not often that he estimates the real loss he sustains by bad roads. United States Farmers' Bulletin 205, "Benefits of Improved Roads," deals with the relation of roads to agricultural conditions as follows:

Farmers sooner or later come to realize the desirability of diversified farming. Perhaps no cause limits farming of this description as effectively as bad roads. Of course, the prime requisite for successful diversified farming is a good market. This market may be either a near-by town or a city, or a distant market which requires railroad transportation. In any case, however, the speed of transportation from the farm to the unloading point is essential. Diversified farming usually means a change from staple crops such as corn and wheat to more perishable products such as fruits and garden truck; that is to say, from crops that may be held at the farm to crops which must be moved away from the farm immediately. The possibility of this change is largely dependent upon road conditions.

A farmer 10 miles from a market for spring truck crops, such as rhubarb, peas, and spinach, is at a great disadvantage if his market road is unimproved, and he may be totally unable to compete with the farmer the same distance from market in another direction on a good road.

About each market or shipping point there is a boundary line which encloses the area that can be cultivated profitably for delivery at that point. If this area is considered as bounded by a circle, it is not difficult to see that its size will depend upon road conditions. The profit to the farmer is determined by the difference between the production and transportation costs and the selling prices. Production must cease when the transportation costs wipe out the difference. As one goes farther from market centers, he passes through successive zones of production, each of which contains fewer farm products, because some products will not bear the additional cost of transportation. With a good system of improved roads radiating from market centers, it must follow, if all other things are equal, that the total area of farming land will increase, as well as the successive areas or zones capable of supporting diversified crops. The whole business of farming is sufficiently dependent upon weather conditions without the added uncertainty of road conditions.

It is a well established fact that market prices for even staple crops vary considerably throughout the year. Where bad roads prevail, farmers are forced to move their crops, not when the market price is favorable, but when the roads are favorable. It is common for the farmer to find that he can not haul his produce to market when prices are highest, because the roads are impassable. When the roads become passable, the time for market has largely passed, and produce is compelled to move in masses which frequently glut the market and break the prices. Excessive fluctuations in market prices are seldom due to overproduction. They frequently take place in regions where the local production does not equal the annual consumption. There are counties in the United States rich in agricultural possibilities, burdened with bad roads, where the annual incoming shipments of foodstuffs exceed the outgoing shipments in the ratio of four to one. Many such counties with improved roads could not only become self-supporting, but could ship products to other markets. A farmer in Sullivan County, Tenn., a few miles from Bristol, had 100 bushels of Irish potatoes which he intended to market during the winter of 1907-8. Owing to bad roads he was unable to haul the potatoes at all and they rotted in the cellar. Nevertheless, the price of potatoes at Bristol went as high as \$1.40 per bushel in the meantime. A Bristol merchant stated that during the winter as many as 10 carloads of farm produce, including wheat, potatoes, and other supplies, were daily shipped in to feed not only Bristol, but the adjacent territory.

The question of opportunity in marketing is worthy of consideration. For the sake of example, let it be supposed that two farmers living in separate counties, but at equal distances from the cotton market, learn by telephone that cotton has advanced in price \$1 per bale. The farmer living on a bad road can immediately haul one bale of cotton, while the other farmer can haul four bales because he lives on a good road.

The rise in price means a profit of \$4 to the one man and only \$1 to his neighbor.

When the roads of the United States or of the great producing zones of this country become improved, it is reasonable to suppose that periodical congestion of markets will tend to disappear. Corresponding benefits will accrue not only to the producer, but to the consumer. When marketing is distributed throughout the year, storage charges must decline. In Chicago the storage charges on grain amount to 12 1/2 cents a bushel per year. The disadvantages of freight congestion in the fall can not be entirely eliminated in many places, but good roads will certainly have a marked tendency to distribute hauling over longer periods.

It is reasonable to say, therefore, that good roads mean that diversified farming will be encouraged, the area of profitable production increased, the opportunity for favorable marketing improved, and more uniform distribution of farm products secured, and, as a consequence, speculation in staple products will be reduced.

What is true in the United States is true here. Great are the losses borne by the producers each year by bad roads. Among other benefits of good roads the bulletin cites those of increase in the value of farm lands, improvement of schools, improvement of rural delivery service, and improvement of social conditions. All these are important, and it needs no explanation to show how good roads effect each. We cannot afford to do without good roads.

North American Egg Laying Contest Closed.

At midnight, October 31st, at Storrs Experiment Station, was concluded the contest in egg-production among 100 pens of fine hens each which began one year before. The White Leghorn pen, owned by F. G. Yost, of Pennsylvania, won first place, with a total of 1,071 eggs, but it was no walk-over, for the Canadian pen of White Wyandottes from Beulah Farm, Wentworth, Ont., was only two behind, with 1,069 eggs. For a considerable length of time an English pen of White Leghorns, owned by Thos. Barron, led, but death entered the pen, and for a long time there were only four layers at work, making a total score of 982 eggs, and a much higher average per bird than the winning pen. Approximately fifty birds in the contest laid over 200 eggs each in the year. The highest-scoring individual bird was a Rhode Island Red from Kentucky, with a score of 254 eggs. The best score by a Barred Plymouth Rock Pen was 925, and by a White Rock 901. A Buff Wyandotte pen scored 847; an S. C. Rhode Island Red 930; seven pens of White Leghorns scored over 900 eggs each, and one pen of Buff Leghorns 947; the top score by a Black Minorca pen was 765; by a Buff Orpington 860, and by a White Orpington 858. As egg-producers the general utility breeds have made a creditable showing. Mr. Barron has entered another pen for the new contest which has begun. Eleven States, Canada and England are represented by twenty different varieties. An extra bird is held in reserve for each pen in case of a death or incurable disease. The birds entered are all new in the contest.

In the contest just closed the total number of eggs laid was 75,230, or an average of 153 1/2 per bird, an exceedingly good showing for so many hens, and creditable to the faith and judgment of their owners. T. V. L. Turner, in drawing some deductions from the results, states that the matter of type in the different breeds and varieties does not seem to influence egg-production so much as the type of the individual. Many high-scoring layers in each variety differ considerably in physical characteristics, and just these conditions of feed, housing, care, heredity and proper mating step in. The detailed conclusions were to be worked out by the Storrs Experiment Station people and issued in bulletin form.

When to Cut Timothy.

In experiments made by H. J. Waters, of the Kansas station, it was found that the largest yield per acre of digestible nutriment materials is obtained by cutting timothy when in full bloom and that the largest yield per acre of field-cured hay, as well as of actual dry matter, is obtained from cuttings made when the seeds were just formed, an early "milk" stage immediately after the bloom had all fallen. In each of these stages a larger yield per acre was obtained from both the standpoint of gross weight of material and that of actual nutrients, than was obtained from earlier or later cuttings; and, while apparently not quite so palatable as when cut at a still earlier period, it would seem in general that we may conclude that the proper time to cut timothy is between the time of full bloom and the period when the blooming has just passed and the seeds are in an early stage of development.

School Fairs.

"Interesting, instructive, profitable," is the verdict passed on the school fairs held in several counties of Ontario this fall. While they are somewhat of a departure from the old methods of exclusive book learning they promise to stimulate an interest in agriculture among the pupils of the rural schools and will possibly lead many to consider farm work as a business and not as mere drudgery.

"We learn to do by doing." With this in view the district representative, assisted by the teachers, gave the pupils a small quantity of selected corn, grain or potatoes, with instructions how to plant and grow the crop. Eggs from utility stock were also given to a number of pupils with instructions how best to rear the chicks.

The pupils have taken great interest in looking after their plots and chickens during the summer, often comparing their crops with those grown by their fathers. In this way father and son discuss the methods of cultivation followed, the selection of seed and other points in connection with the growing of a particular crop.

But the crowning feature of the work is the fair, where the products of the plots, the chickens, collections of weeds, weed seeds, and insects are placed on exhibition, pupil competing against pupil and school against school for the prizes offered. Most of the fairs have been held in a tent erected on the grounds of the school most centrally located in the district. Early on the day of the fair the exhibits begin to arrive. Boys with their pullets and cockerels, the best birds of the land, the grain, corn and potatoes from the plots, better in quality and yield than father ever grew. The girls bring sewing, cooking and preserving, samples of their own work, and a credit it is to them. Some fairs offer prizes for collections of weeds, seeds and insects, correctly named, and the neatness of arrangement and correctness of the collections would put many a college student to shame.

By noon all exhibits are in their places, and judging commences. The judge soon realizes that a task is before him when he begins to pick out the best pen of birds from forty or more exhibits, the commonest of them all being worthy of a prize. The crops from the plots are so carefully selected and arranged that they offer no small problem for the judge.

Interest is shown in the work by the hundreds of parents and pupils that attend the fairs, the parents showing almost as much interest as the pupils, and many a proud father shows his neighbor the result of his son's work. Then again, the fair permits the parents and children of different school sections to meet, which tends to bind the community together more strongly. Sports are usually a feature of the afternoon, which adds interest, the teacher and trustees entering into the races with as much zest as the boys and girls.

Addresses are given by prominent men, the judges give reasons for their awarding of the prizes, and tell where improvement can be made in selection or arrangement for another year. Many questions are answered for the instruction of all present.

The material supplied the pupils is the best that can be secured, and as the products become the property of the grower, new and better varieties are often introduced into the section. But more profitable still is the tendency the growing of the crops and exhibiting at a fair has of giving the rising generation a more wholesome idea of the dignity of agriculture.

The fairs have been a success, and wherever held the people say they must be continued. May the time soon come when every rural school will take up this work, or something similar, to give the youth of our land a knowledge pertaining directly to their environment and to their chosen calling.

ONE INTERESTED.

Trying Season in Nova Scotia.

Editor "The Farmer's Advocate":

The season of 1912 has been one of the most trying the Nova Scotia farmer has ever known. A cold, dry April was followed by very heavy rains the last week of May and first of June, then three weeks of very dry weather, and after the middle of July just rain, rain, until nearly the first of October. October was a beautiful month, and fall work has made good progress, though there is a lot of plowing to do yet (Nov. 6th), and probably one-third of the turnip crop is still to be harvested. The hay crop was nearly an average on the uplands, but the marshes were quite short. Early-sown grain was a good crop, but later-sown was quite light, and many fields did not ripen. Potatoes and turnips are not more than half a crop, and potatoes are raising badly. On account of the shortage of hay and roots young cattle and spring-calving cows are low. Work horses, fresh cows, pork, butter and poultry and eggs are in demand at high prices.

C. H. BLACK.

Cumberland Co., N. S.

Bank Credit for Farmers.

Discussing the subject of the farmers' banking credit, The Toronto Globe of recent date gives a strong leader, from which we quote:

"The Canadian banking system is a highly efficient but also a greatly centralized machine. There are but five and twenty banks in the Dominion. Their paid-up capital—if that of the Sovereign Bank, now in process of liquidation, be excluded—is a trifle over \$110,000,000. They hold in deposits in Canada more than a thousand million dollars. This represents practically all the savings of the people available as the foundation of the country's credit system. There are savings in the form of life insurance accumulations and deposits of loan and mortgage companies, but they are not liquid, being for the most part invested in loans on real estate that run for years and cannot be converted quickly into actual cash.

"Speaking generally, therefore, twenty-five banks control all the available liquid savings of Canada. There could be gathered into an ordinary room in the cities of Montreal or Toronto all the men who really command this vast reservoir of the nation's capital, for banking is becoming more and more a one-man power, and almost all the banks have some dominant individual in control. It is quite clear that to prevent absolutely autocratic rule on the part of the money interest the people, who provide nine-tenths of the capital used, must reserve large powers of direction, supervision, and inspection. How absurdly out of date this system is can be understood by reference to the position of the farmer under the Bank Act. As a class farmers contribute great sums to the total of bank deposits. The banks, however, are forbidden by law—a law made largely by the influence of the bankers themselves—to loan money to the farmer on any other security than his note or personal credit. If he wishes to raise money on the security of his lands or buildings he must go to a private lender or a mortgage corporation. If he wishes to raise money on his crop after it is gathered into his barns or his cattle awaiting shipment the bank is forbidden by law to lend and take a lien on his crops or cattle as security. The manufacturer, merchant, warehouseman, or dealer can all secure advances from the banks on the security of goods in their possession, but the original producer of agricultural products cannot obtain a dollar of an advance though he may have thousands of bushels of wheat in his possession not immediately salable. So long as wheat remains in the farmer's possession it represents a risk on which money cannot be raised. The moment it gets into the elevator or car it can be turned into cash.

"The chief objection urged against the extension of bank credit to the farmer on the security of his products is that it would increase by many millions the secret preferences now held by the banks. A manufacturer at present may pledge all his stock in trade to a bank in return for advances. The bank is not required to register the transaction, and other creditors may go on advancing goods or material, not knowing that the bank has a prior claim on all the manufacturer's assets. In the same way, it is asserted, the storekeeper and the country creditor of the farmer might give him credit on the understanding that they would be paid out of the proceeds of his crop, only to discover that the bank, by advancing money on the crop, had obtained a priority and left them without means of recovering their money.

"The obvious answer to this is that so long as the manufacturer, or the merchant, or the warehouseman is permitted to give a secret preference there is no sound reason for preventing the farmer from doing the same thing. He is no more likely to play his creditors false than the townsman, and as he contributes a very large share of the banking resources of the country he has a right to demand that he shall not be discriminated against in the granting of loans. If bank credit is not made more readily available to the farmer at the coming revision we shall undoubtedly see ere long a formidable agitation for the creation of banks specially designed to supply the farmer with short-date credit. The bankers may as well make up their minds that relief in one form or another must come."

On Nov. 1st the second competition in egg-laying between 100 pens of five hens each began at Storrs Experiment Station, Connecticut, and will continue for one year. It is operated in the same premises as the former one, under the same general conditions, and conducted by the North American newspaper of Philadelphia and the Experiment Station authorities. There are five English entries, W. Barron and Ed. Cam in White Wyandottes, and Thos. Barron, Frank Joulain and Ed. Cam in White Leghorns, and three from Canada, McLeod Bros. (Beulah Farm) Wainworth Co., Ont., one entry of hens and one of pullets in White Wyandottes, and R. A. Morrison, Frontenac Co., Ont., in White Leghorns.

Nature's Diary.

By A. B. Klugh, M. A.

Now is the period of an interval in our bird population. Most of the birds which breed with us have left, those which breed further north and winter further south have passed through, and the winter visitors from the great northland have not yet arrived.

There is with us still, as always, our old stand-by, the chickadee—that always cheerful, acrobatic ball of feathers which seems never daunted by the most chilling frost, nor exhausted by the most torrid weather of July, nor depressed by the coldest of fall rains. Surely all who spend any time in the woods must love the chickadee—it is the friendliest of birds. If you whistle an imitation of its "whee-hur-ur" song it will come within hearing, and if you "play stump" and keep perfectly still it may perch on your shoulder or head. One can learn a lot by "playing stump"; if you are constantly on the move you never see any of the wild creatures going about their business in a natural way, and many of them you never see at all. Many of the wild denizens of our woods have learnt that a stationary object is not readily seen, and they "freeze" when alarmed. It takes a sharp eye to see a chipmunk which has "frozen." To "go further and see less" is an old saying, and a very true one as far as observations of nature are concerned. It is true not only of animal life but of plant life also. Many a small plant, and some not so very small either, escape us if we plunge through the country in a hurry. If we sit down and look and look—and then—look again, it is surprising how many things we notice which were unseen before.

The Chickadee is a gleaner, a gleaner of insects and insects' eggs. It searches the bark and it searches the twigs, and many and many an insect foe does it "nip in the bud." It gathers up the eggs of the Tent Caterpillar, the Fall Canker Worm, immense numbers of eggs of Plant Lice, and also adults of the very destructive Bark Beetle which winter hidden in crevices of the bark.

If you would have this "gleaner" busy in your orchard this winter, hang a lump of suet on a tree by a string. The Chickadees will then come and swing on it and peck at it. But they won't eat only the suet, they will stay around the orchard and hunt up hidden insects and eggs.

Another "gleaner" which associates with the Chickadees during the fall and winter is the White-breasted Nuthatch, that little straight-billed, slaty-backed bird which scrambles about the trunks and limbs of trees, as often head down as right side up, uttering its loud "Quank-quank."

Most of our trees are now bare. Why so? Because leaves are not only useless but dangerous possessions for them in the winter. The only trees now with leaves upon them are the evergreens, whose leaves are protected by their form and structure. Against what? Against cold? No, against dryness. For it is the drying action of cold which kills vegetable structures. All moisture in the winter is converted into a "dry" form as ice or snow. Now a form of leaf adapted to withstand drought is not the very best form for performing its work in the period of activity, and so many of our trees have acquired the "deciduous habit" and find it more economical to grow new leaves each year, and get rid of them in the autumn. Why do they fall? Are they frozen off? Or blown off? Neither, they grow off. Early in the summer a ring of cork is formed at the base of the petiole (stalk) of the leaf, and this ring gradually cuts in and in until the leaf is connected to the twig only by a slender thread consistency of the "veins." Back along these veins flow the nutritious matters of the leaf, then one day a breeze breaks this thread and the leaf falls to the ground, consisting only of dead cells useless to the tree, and salts not needed by the tree which have been deposited in the leaf in the form of crystals.

The woods and fields are very still at this season, gone is the joyous song of the birds, and hushed the myriad midsummer sounds of the insects. The Cricket is almost the sole remaining musician and his "cheerful" chirp sounds the louder through lack of opposition. We speak of the "chirp of a Cricket, and often of the "voice" of the insects, but this does not imply that the sounds are made by the mouth or by vocal chords. Insect music is produced in a great variety of ways. The Cricket makes his (for only the males chirp) by raising the wing-covers over the back at an angle of about forty-five degrees, and rubbing together their thickened and roughened veins. The Locusts rub a fine "file" on the upper segments of the hind leg over a thickened vein on the wing-cover. The shrill "voice" of the Cicada or Dog-day Harvest Fly is made by the alternate stretching and relaxing of a pair of parchment-like membranes by means of muscles. In the case of the Cicada again only the males produce this sound, which has led a poet, who, apparently did not have a wife who

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believed that "speech is silvern, but silence is golden" to write:—

"Happy the Cicada's lives
For they all have voiceless wives."

The Frogs have nearly all disappeared from the face of the earth. Where have they gone? Look under flat stones along the margins of lakes and rivers, in from three to four feet of water. There you will find them usually from three to eight together, huddled up in a very sleepy condition. At the approach of cold weather they come hopping down to the shore, and at first get under stones at the water's edge, then they gradually move out until they are beyond the zone where the ice forms solid to the bottom. Here they pass the winter in a dormant state getting the little oxygen they need to maintain life from the water through the skin.

Provincial Forester Appointed.

Prof. E. J. Zavitz, who for several years has been in charge of the Ontario Government's reforestation work in Norfolk county, and who has been Professor of Forestry at the Ontario Agricultural College for a number of years, has been appointed Provincial Forester under the Department of Lands and Mines. Reforestation on waste lands of older Ontario and a systematic conservation of the timber in the northern part of the Province are part of the policy of the Government in making the appointment. Professor Zavitz is to advance educational work in forestry, and study new methods of scientific conservation.

Until further arrangements are made Prof. Zavitz will continue his lecture work at the Ontario Agricultural College, and his supervision of the Norfolk reforestation farm. In all probability the Norfolk farm will be transferred from the Department of Agriculture to this new branch of the Government service.

The Nova Scotia Agricultural College opened its 1912-13 session on November 5th with the enrollment of 102, which is far in excess of any previous enrollment in the history of the college. At the corresponding date last year, the enrollment was 58, which number was increased to 78, being the highest number of students that had attended the regular course up to that time. The best feature is that the students who have been going out from the Nova Scotia Agricultural College are largely settling on the lands of the Maritime Provinces, and, we are informed, giving a most excellent account of themselves. Not only are they putting a new spirit into the

annual tilling of the soil, but in Nova Scotia particularly, their influence is being felt in the establishment of new creameries, in the breeding of stock, in the growing of seed grains, and in nearly all lines which point to a successful agriculture.

Behind With the Work.

Fall rains are usually frequent and often heavy, but seldom is such a steady downpour experienced as that which visited Western Ontario last week. The Thames river rose six feet in a single night, but the river was not the only place in which the water rose. Acres of land were inundated, and two days after the rain ceased many fields had large portions of their area still under several inches of water. A wet fall after a summer of exceptional precipitation has so retarded work that scarcely a farm in the South-Western Peninsula of the Province is anything like prepared for winter. Oldtimers are often heard to say, "it won't freeze up until the swamps are full of water." If it had frozen up this season as soon as this was the case, we would have had zero weather most of the time during the haying, harvest and autumn periods. However, the swamps are full, so are the furrows, and in some cases the collars.

Bad weather and scarcity of labor have kept everything behind. Hundreds upon hundreds of barrels of apples are rotting on the ground or spoiling on the trees. The evaporator and canning factories have handled large quantities at a small price. Plowing has been greatly retarded, in fact in some localities little has been done and roots have been harvested under great difficulties, the fields being so soft that it was almost impossible to draw them off, and "clean roots" are out of the question. Silage corn was harvested later than ever before, and all farm work has seemed a drag. A farmer in Middlesex county was heard to remark, "This is the hardest season I ever put in. Everything had to be done with a rush between rains." But notwithstanding the bad season more feed is in the barns than was the case in the fall of 1911. Live-stock should winter comparatively well, and farmers should utilize much of the grain injured by rain for feed.

From present indications it would seem as though next spring would be another rush season. There will be acres and acres to plow, which means a lot of extra work and fast work for it must be done quickly to get the seed in early. Late seedings are not popular nor are they profitable. With last year so very dry and this year a regular flood it is to be hoped that 1913 will simmer down to an equilibrium.

Ensiling Soy Beans

At the Massachusetts Hatch Station, a comparison of the amounts of protein, fat, and carbohydrates produced on an acre each of soy beans and flint corn cut for green fodder, showed that the soy bean acre produced nearly 34 per cent more of protein than did the acre of corn; while the acre of corn produced over 84 per cent more of carbohydrates and fat than did the acre of soy beans. Ensilage made from corn alone is known to be a wide ration, and needs to be supplemented with foods richer than itself in protein in order to balance the ration. The Massachusetts test indicates how this may be done where both the corn and soy beans can be grown to a reasonable degree of maturity, and combined when filling the silo. It is not to be inferred that a mixture of the two crops will make it unnecessary or unprofitable to feed grain in the ration; but in practice it has been found possible to reduce the amount of grain fed to dairy cows, and maintain the milk flow if a portion of the silage consists of soy bean fodder. The digestibility of soy beans compares favorably with that of alfalfa and clover. Silage made from corn and soy beans has been found more digestible than that made from dent corn alone.

Soy beans grown for silage should be harvested when the pods are mostly filled, and the leaves have not begun to fall off. They may be harvested with a side-delivery reaper or with a twine binder. Soy beans cut for silage must be hauled from the field, and mixed with corn fodder at the cutting box in order to have the mixture of corn and soy beans evenly distributed in the silo. In this way any proportion of beans to corn may be made at will. It is not wise to use more than one load of beans to two of corn, and one to four will be found to enrich the silage noticeably. Soy beans alone, because of the high protein content, tend to make a strong-smelling, objectionable silage. Their dilution with corn fodder in the silo reduces the danger of strong odors, and makes the silage more nutritious and not less palatable than that from corn only. The yield of soy-bean fodder can not be so heavy as the yield of corn from the same ground. On a fixed area therefore the total yield of both corn and soy-bean fodders will be less than if all corn were grown. In order to follow the foregoing practice the grower must either cultivate more acres or else be content with a smaller quantity of fodder.

It is estimated that Ontario grows annually approximately six million acres of grain crops.

GOSSIP.

IMPORTANT CLYDESDALE SALE.

Thirty choice Clydesdale fillies, carefully selected and imported by Dr. D. McEachran, Ormstown, Que., will, as advertised, be sold by auction at his farm, Thursday, November 21st. A fine opportunity is here given to secure young mares of choice breeding and quality.

CLYDESDALES AT AUCTION.

Wednesday, November 27th, is the date for the auction sale at Hamilton, Ont., of fifty high-class Clydesdale fillies recently imported by D. C. Flatt & Son. These are a select offering, and a number have been bred to noted sires in Scotland. This sale will afford a rare chance to get good young mares at the buyer's own price.

BIG PRICES FOR YORKSHIRES.

At an auction sale of Yorkshire hogs, the property of D. R. Daybell, Grantham, England, October 25th, bidding was brisk, and buyers were present from Russia and Poland. Lord Ellesmere paid the highest price, 140 guineas, a little over \$700, for a nine-months-old boar, said to be a record price for a pig in England. This one, with four others of the same litter, made a total of \$1,565, an average of \$325. The 61 head sold, big and little, made an average of \$77.50.

At the annual consignment sale of Shorthorns, at Darlington, England, Oct. 25th, the high price of \$2,600 was realized for the eleven-months roan bull calf, Prince of Orange, by Prince of the Blood, dam Golden Wreath 16th, bred and consigned by C. H. Jolliffe, Darlington, and purchased by J. L. Reid, Cromleybank, Mr. Duthie being the runner-up; \$1,250 was paid for the red bull calf, Proud Actor, consigned by W. M. Scott, the purchaser being Sir Oswald Mosley. The 124 animals catalogued, made an average of \$195.

TRADE TOPIC.

SPECIAL TRAIN TO PORTLAND, MAINE, FOR SAILING S.S. "TEUTONIC," DECEMBER 14th.

For the accommodation of passengers sailing on the White Star-Dominion Line Steamship "Teutonic," from Portland, Maine, December 14th, the Grand Trunk Railway will run a special train consisting of vestibuled coaches, tourist and first-class standard Pullman sleeping-cars, leaving Toronto at 1.15 p. m., Friday, December 13th, running direct to the dock at Portland, arriving there at 9 a. m., December 14th. Berth reservations, tickets, and full particulars, can be obtained from nearest Grand Trunk agent, or write A. E. Duff, D. P. A., Union Station, Toronto, Ontario.

QUESTIONS AND ANSWERS. Miscellaneous.

SOUTHDOWN VS. SHROPSHIRE.

1. What are the merits and demerits of the Southdown breed of sheep?
 2. How do they compare with Shropshire or Oxford?
 3. My flock is from half to three-parts-bred Southdown, and I can get either grade Shropshire or a registered Southdown ram. Which would you advise me to use?
- Ans.—1, 2 and 3. We could not give you, in the space allotted to answering questions, all the merits and demerits of either the Southdown or Shropshire breeds of sheep. Both are good breeds, hardy, good mutton sheep, which, with good management, will give satisfactory returns. The Southdown is scarcely as large as the Shropshire or Oxford, but for quality of mutton is equal to either. Seeing that your flock is now from one-half to three-parts Southdown breeding, why not use a Southdown ram? By all means, provided the ram is a good individual of his breed, use the pure-bred Southdown in preference to a grade

Shropshire. This is not because he is a Shropshire, but because grades should not be used as sires. Do not use a ram because he is pure-bred alone. Insist upon his being a good individual as well.

PROPOSED ROAD.

There is a rumor that a road will be put through our farm by the township or county; we don't know which. Some real-estate people are opening a survey, and the road may be for their benefit.

1. Can we be compelled to sell land for this road, through the entire length of our place?

2. Have we any say as to where the road will pass through, as one party wants it on our south line and another on our north line? If it can be manipulated to suit others, what can we do to get it where we want it?

3. Should this road go through, will we have anything to pay for its making, or will there be extra taxes put upon us, other than our neighbors' pay, who won't have a frontage on it?

4. Is there any authoritative body, controlling the layout of roads,—as road may have a bad jog in it, which could be easily avoided, if interested parties don't get their way?

ROADMAN.

Ans.—1. No; but the municipal corporation may enter upon and take the land necessary or convenient for the purpose, subject to certain restrictions contained in The Consolidated Municipal Act, 1903. See Sec. 637 (1) (2), of the Act.

2. Yes; you are entitled to be heard by the council of the municipality, either in person or by counsel or solicitor, after petitioning the council to be so heard. And the council must first give at least a month's notice, by posters and newspaper advertisements, of their intended by-law for the establishment of the road. See Sec. 632, of the Act.

3. It is probable that you will have some extra taxes to pay.

4. The matter is one to be controlled and disposed of by the municipal council.

THE SPICE OF LIFE.

QUALITY.

"Youse can't marry my sistah. She's a lady ob rank."
"Well, I'ee as rank as she am!"

MISTAKEN IDENTITY.

"As I was going over the bridge the other day," said a son of Erin, "I met Patrick O'Connor. 'O'Connor,' says I, 'how are you?'"
"Pretty well, Donohue," says he."
"Donohue," says I; 'that's not my name.'"
"Faith," says he, 'and mine's not O'Connor.'"

"And with that we looked agin at aich ither, and bejabers it was nayther iv us."

SO INCLINED.

"So, that's the baby, eh?"
"That's the baby."
"Well, I hope you will bring it up to be a conscientious, God-fearing man."
"I am afraid that will be rather difficult."
"Pshaw. As the twig is bent the tree's inclined."
"I know, but this twig is bent on being a girl, and we are inclined to let it go at that."

A DIFFERENT CASE.

Fred, six years old and his sister Hattie were dining with an aunt. When Fred helped himself to the second piece of cake, his sister whispered:
"Fred, you know mamma never allows you to eat more than one piece of cake."
"Oh, she won't care this time," replied Fred, confidentially, "this isn't her cake."

MARKETS.

Toronto.

REVIEW OF LAST WEEK'S MARKETS

At West Toronto, on Monday, Nov. 11, receipts of live stock numbered 93 cars, comprising 1,561 cattle, 475 hogs, 511 sheep, and 22 calves. No business transacted. Hogs were quoted at \$7.95 fed and watered, and \$7.50 f. o. b. cars, and \$8.10 weighed off cars.

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

	City.	Union.	Total.
Cars	83	416	499
Cattle	953	6,148	7,096
Hogs	2,075	6,389	8,414
Sheep	2,037	6,261	8,298
Calves	110	650	760
Horses	7	25	32

The total receipts of live stock at the two markets for the corresponding week of 1911 were as follows:

	City.	Union.	Total.
Cars	266	256	522
Cattle	4,139	3,437	7,576
Hogs	3,950	5,270	9,220
Sheep	4,632	3,585	8,217
Calves	369	159	528
Horses	—	14	14

The combined receipts for the past week at the two yards, show a decrease of 23 cars, 480 cattle, and 866 hogs; but an increase of 81 sheep, 232 calves, and 18 horses, compared with the corresponding week of 1911.

While the receipts have been liberal for the past week, it will be seen that they were not as large as for the previous week, but quite equal to the demand, as there were none wanted for export. The quality of the fat cattle was not as good as usual, that is, there were only a few good to choice loads, in comparison with the large numbers of medium, common and inferior classes that have been coming forward from day to day, for several weeks, and the past week in particular. Trade was active for good to choice butchers' cattle, at about 10c. to 15c. per cwt. better prices than were paid for the previous week; but the medium, common, and inferior grades, were no higher; in fact, the light, Eastern cattle, were, if anything, a little lower, although there were many farmers and dealers taking them back to the farms.

Butchers.—Choice butchers' cattle, 1,100 to 1,250 lbs., sold at \$6 to \$6.15, and some of export weights, 1,300 to 1,850 lbs., sold at \$6.25 to \$6.35, for local abattoir purposes; loads of good steers sold at \$5.75 to \$6; loads of good heifers, \$5.50 to \$5.90; medium steers and heifers sold from \$5 to \$5.40; common, \$4.25 to \$4.75; inferior, \$3.75 to \$4.25; cows sold from \$3 to \$5.25; canners, \$2 to \$2.50; bulls, \$3 to \$4.75.

Stockers and Feeders.—The demand for heavy steers for feeding purposes was not as keen as for some time past, and prices were about 10c. per cwt. lower. Steers, 1,000 to 1,100 lbs., sold at \$5.25 to \$5.50; steers, 900 to 950 lbs., \$5 to \$5.25; stockers, yearlings, and two-year-old steers and heifers, sold all the way from \$3 to \$4.50 and \$4.75 per cwt., according to quality.

Milkers and Springers.—The demand for milkers and springers has not diminished in the least. Prices ranged from \$50 to \$80 each, and extra-quality cows brought \$90 to \$100 each, two selling at the latter price on Wednesday's market.

Veal Calves.—Receipts of calves were again heavy, the rough, grassy, Eastern class being again plentiful, and selling from \$3 to \$4.25 per cwt.; medium-quality calves sold from \$4.50 to \$6.50; good, \$7 to \$8.50, and choice veal calves, \$9 to \$9.25, and a very few extra quality brought \$9.50.

Sheep and Lambs.—Receipts were large, but all offerings were readily taken, as the demand was good. Sheep—Light ewes sold from \$4 to \$4.35; heavy ewes, from \$3.25 to \$3.75; lambs, from \$6 to \$6.35, with a few at \$6.40 per cwt.

Hogs.—Prices were lower for hogs. On Tuesday, \$8 to \$8.10 was paid for hogs fed and watered; on Wednesday, \$8 to \$8.20 was paid, and on Thursday, the market closed at \$8.10 to \$8.20 fed and

watered, and \$7.75 f. o. b. cars at country points.

BREADSTUFFS.

Wheat.—Ontario, new, 95c. to 97c., outside; inferior grades down to 70c. Manitoba No. 1 northern, 94c.; No. 2 northern, 91c., track, lake ports; feed wheat, 70c., lake ports. Oats—Ontario, new, 39c. to 40c., outside. Manitoba oats, No. 2, 43c.; No. 3, 42c., lake ports. Rye—No. 2, 78c. to 80c., outside. Peas—No. 2, \$1.10 to \$1.15, outside. Buckwheat—52c. to 53c., outside. Barley—For malting, 60c. to 65c. (47-lb. test); for feed, 48c. to 60c., outside. Corn—No. 3 yellow, old, 66c., all rail, Toronto. Flour—Ninety-per-cent. Ontario winter-wheat flour, \$4.10 to \$4.25, delivered. Manitoba flour—Prices at Toronto are: First patents, \$5.70; second patents, \$5.20; in cotton, 10c. more; strong bakers', \$5 in jute.

HAY AND MILLFEED.

Hay.—Baled, in car lots, track, Toronto, \$14 to \$14.50; No. 2, \$12. Straw.—Baled, in car lots, track, Toronto, \$10 to \$10.50. Bran.—Manitoba bran, \$22 to \$23 per ton; shorts, \$26; Ontario bran, \$23 in bags; shorts, \$25, car lots, track, Toronto.

TORONTO SEED MARKET.

Alsike No. 1, per bushel, \$11.50 to \$12; alsike No. 2, per bushel, \$10.50 to \$11; alsike No. 3, per bushel, \$9.50 to \$10; timothy No. 1, per bushel, \$1.90 to \$2.25; timothy No. 2, per bushel, \$1.25 to \$1.60.

COUNTRY PRODUCE.

Butter.—Common to medium grades of butter were firmer. Creamery rolls, 31c. to 32c.; creamery solids, 29c. to 30c.; separator dairy, 28c. to 30c.; store lots, 24c. to 26c.

Eggs.—New-laid, 40c.; cold storage, 28c. to 30c.

Cheese.—Market easy. Large, 14c.; twins, 15c. Honey.—Extracted, No. 1 clover, 12c. per lb.; combs, per dozen, \$2.75 to \$3.

Potatoes.—New Brunswick Delawares, 82c. to 85c., track, Toronto; Ontarios, 80c. per bag, track, Toronto.

Beans.—Prices unchanged, at \$3 for primes, and \$3.10 for hand-picked.

Poultry.—Dressed poultry—Wholesale prices were as follows: Turkeys, 23c. to 24c.; geese, 15c. to 16c.; ducks, 17c. to 18c.; chickens, 14c. to 16c.; ducks, 16c. to 18c.; geese, 13c. to 14c.; hens, 12c. to 13c.

HIDES AND SKINS.

No. 1 inspected steers and cows, 15c.; No. 2 inspected steers and cows, 14c.; No. 3 inspected steers, cows and bulls, 13c.; country hides, cured, 13c. to 14c.; country hides, green, 11c. to 12c.; calf skins, per lb., 14c. to 17c.; lamb skins, 60c. to 85c.; horse hides, No. 1, \$3.50 each; horse hair, per lb., 37c.; tallow, No. 1, per lb., 5 1/2c. to 6 1/2c.

WOOL.

Unwashed, coarse, 13c.; unwashed, fine, 14 1/2c.; washed, coarse, 19c.; washed, fine, 22c.; rejects, 16c.

TORONTO FRUIT MARKET.

The Toronto wholesale fruit market has been closed for the season, but the receipts of apples and grapes have been large this week. Prices ranged as follows: Apples, \$1.50 to \$2.50 will buy you good to choice fall apples, as receipts just now are greater than the demand; apples, per basket, 15c. to 30c.; pears, 50c. to 75c.; tomatoes, 35c. to 40c. per basket; grapes, 17c. to 35c. per basket; quinces, 35c. to 40c.; celery, 25c. to 30c. per dozen.

Buffalo.

Cattle.—Prime steers, \$9 to \$9.25; butchers', \$5.75 to \$8.50; bulls, \$4.50 to \$6.25; stock heifers, \$4.25 to \$4.50; shipping, \$7.50 to \$8.75; heifers, \$4.65 to \$7.50; cows, \$3 to \$6.50; stockers and feeders, \$4.50 to \$6.80; fresh cows and springers, \$35 to \$75. Veals.—\$4 to \$11. Hogs.—Heavy, \$8.30 to \$8.40; mixed, \$8.20 to \$8.25; Yorkers, \$7.75 to \$8.25; pigs, \$7.50 to \$7.60; roughs, \$7.15 to \$7.25; stags, \$5 to \$6.50; dairies, \$7.75 to \$8.20. Sheep and Lambs.—Lambs, \$4.50 to \$7.15; a few, \$7.25; yearlings, \$5 to \$5.50; wethers, \$4.50 to \$4.75; ewes, \$2 to \$4; sheep, mixed, \$3 to \$4.25.

Montreal.

Live Stock.—Offerings of cattle on the Montreal market last week were fairly large. Best steers sold at 6c. per lb., while good to fine stock was 5 1/2c. upwards, and medium was around 4 1/2c. to 3c., with common grades ranging down to 3c. per lb. There was a good demand for lambs, and prices were steady, at 6c. to 6 1/2c. per lb. Sheep sold at steady prices, being 3 1/2c. to 4c. per lb. Calves were steady, being \$3 to \$10 each, as usual, and supplies being light. The market for hogs was easier, and prices ranged from 8 1/2c. to 8 3/4c. per lb., for selects, weighed off cars.

Horses.—Market fairly active, quite a few horses being taken for lumber camps. Carters in the city were also buying, this being one of the busiest periods of the year in the matter of export shipments and movement of freight generally. Prices continued quite firm, at recent ranges. Heavy draft horses, 1,500 to 1,700 lbs., \$300 to \$400 each; light draft, 1,400 to 1,500 lbs., \$225 to \$300 each; light horses, weighing from 1,000 to 1,100 lbs., \$125 to \$200; broken-down animals, \$75 to \$125, and choicest saddle and carriage animals, \$350 to \$500.

Dressed Hogs and Provisions.—The market for dressed hogs was rather easier, in harmony with the market for live, and quotations ranged from 12c. to 12 1/2c. per lb. Extra large hams, weighing 28 lbs. and over, sold at 13 1/2c. per lb., 20 to 28-lb. weights selling at 15c., and lighter ones at 17c. per lb.; small, boneless hams, 19c., larger ones being 17c. English, boneless, selected bacon, 19c., the thick being 18c. Windsor, skinned backs, 21c. per lb., spiced roll bacon, 16c., and Wiltshire sides, 17 1/2c. per lb. Barrel pork, \$21.50 to \$29.50 per barrel. Lard, 15 1/2c. to 16 1/2c. per lb. for extra pure, and 9 1/2c. to 10 1/2c. for compound.

Potatoes.—Very little change. Prices are no doubt being kept down by the large offerings of stock which would go bad shortly if carried. Meantime, prices are 70c. to 75c. per bag for Cobblers, carloads, track, per 90 lbs. Jobbing prices were 15c. to 25c. more.

Eggs.—Select stock, 30c. to 31c. per dozen; No. 1 stock, 28c. per dozen, and No. 2 stock, 25c. per dozen.

Syrup and Honey.—Prices of honey are firm, being 16 1/2c. to 17c. per lb. for white-clover comb honey, and 12c. to 12 1/2c. for extracted, dark comb being 14c. to 14 1/2c. per lb., and extracted 8 1/2c. to 9 1/2c. per lb. Maple syrup, 8c. to 8 1/2c. per lb. in tins, and 6 1/2c. to 7c. in wood; sugar, 8 1/2c. to 9 1/2c. per lb.

Butter.—The market was stronger once more, prices advancing to a new level in the country. Prices here were about 30c. to 31c. per lb. for choicest creamery, and from 1/2c. to 1c. less for less choice. Dairy butter, 25 1/2c. to 26c. per lb.

Grain.—Market for oats showed little or no change, No. 2 Canadian Western oats being 5 1/2c. to 5 3/4c. per bushel; No. 1 feed, extra, 50 1/2c. to 51c.; Ontario malting barley, 78c.; No. 2 buckwheat, 55c. to 56c.; No. 3 yellow corn, 67c. to 68c.

Flour.—There was a decline of 20c. per barrel in price, Manitoba first patents being \$5.90, seconds \$5.40, and strong bakers' \$5.20. Ontario patents were \$5.25 to \$5.35 per barrel, and straight rollers \$4.95 to \$5 in wood, flour in jute being 30c. less.

Millfeed.—Prices fairly firm. Bran, \$23 per ton in bags; shorts, \$26 to \$27 per ton; middlings, \$28 to \$30 per ton; mixed mouille, \$34 to \$35, and pure grain mouille, \$36 to \$38 per ton.

Hay.—No. 1 hay, \$14.50 to \$15 per ton; No. 2 extra, \$13.50 to \$14; No. 2 ordinary, \$11 to \$12; No. 3 hay, \$10 to \$10.50, and clover mixed, \$9 to \$9.50.

Hides.—The market for lamb skins advanced to 85c. each. Beef hides were still 12c., 13c., and 14c. per lb., for Nos. 3, 2 and 1 hides; calf skins, 15c. for No. 2, and 17c. for No. 1; horse hides, \$1.75 each for No. 2, and \$2.50 for No. 1. Tallow, 1 1/2c. to 3c. per lb. for rough, and 6c. to 6 1/2c. per lb. for rendered. Demand fairly active throughout.

Chicago.

Cattle.—Beeves, \$3.20 to \$10.65; Texas steers, \$4.40 to \$5.65; Western steers, \$5.50 to \$9.25; stockers and feeders, \$4.15 to \$7.10; cows and heifers, \$2.75 to \$7.40; calves, \$6.75 to \$10.75.

Hogs.—Light, \$7.35 to \$7.95; mixed, \$7.45 to \$8.10; heavy, \$7.30 to \$8.10; rough, \$7.30 to \$7.50; pigs, \$4.75 to \$6.90.

Sheep and Lambs.—Sheep, native, \$3.40 to \$4.60; Western, \$3.60 to \$4.50; yearlings, \$4.75 to \$5.85; lambs, native, \$5.30 to \$7.50; Western, \$5.75 to \$7.40.

Cheese Markets.

Belleville, Ont., 12 1/2c. to 12 3/4c.; Brockville, Ont., 12 1/2c.; Kingston, Ont., 12c. to 12 1/2c.; Ottawa, Ont., 12 1/2c.; Picton, Ont., 12 1/2c.; Napanee, Ont., 12c. to 12 1/2c.; Cornwall, Ont., 12 1/2c. to 12 3/4c.; Iroquois, Ont., 12 1/2c.; Vankleek Hill, Ont., 12 1/2c.; 12 3/4c., 12 1/2c.; Victoriaville, Que., 11 1/2c.; Canton, N. Y., butter, 32 1/2c.

British Cattle Market.

John Rogers & Co. cable prices for Irish steers at 11 1/2c. to 12 1/2c. per pound.

GOSSIP.

Attention is called to the advertisement in another column of N. A. McFarlane, Dutton, Ont., who offers some good Shorthorns and Oxfords. A choice bull calf is in the offering, and ram and ewe lambs of the right kind are for sale at reasonable prices. Look up the advertisement.

In addition to the Shires mentioned in the sale advertisement of Porter Bros., Appleby, Ont., to take place December 5th, is a bay three-year-old Canadian-bred filly, large, smooth, and a fine type of this grand draft breed, sired by the champion, Sand Boy. (imp.) [886] (21832), dam Normoor Nell 2nd, by Bank of Wales (imp.).

The report of receipts and disbursements of the American Shropshire Association for the fiscal year ending September 30th, 1912, shows receipts, \$18,169.47; disbursements, \$13,908.64, and a cash balance on hand October 1st, of \$4,260.83. Receipts for pedigrees were \$9,558.50. The regular meeting of the Association will take place at Union Stock-yards, Chicago, December 4th, at 10 a. m.

At the dispersion sale in Chicago, October 29th, of the Shorthorn herd of Abram Renick, until recently of Winchester, Ky., the cattle, being sold fresh from the pasture, without special fitting, brought moderate prices, the highest being \$250, for the roan four-year-old, Duchess 71st, purchased by R. A. Fairbairn, Westfield, N. J. The sale list shows a distribution of the cattle from Maryland to Montana.

SALE DATES CLAIMED.

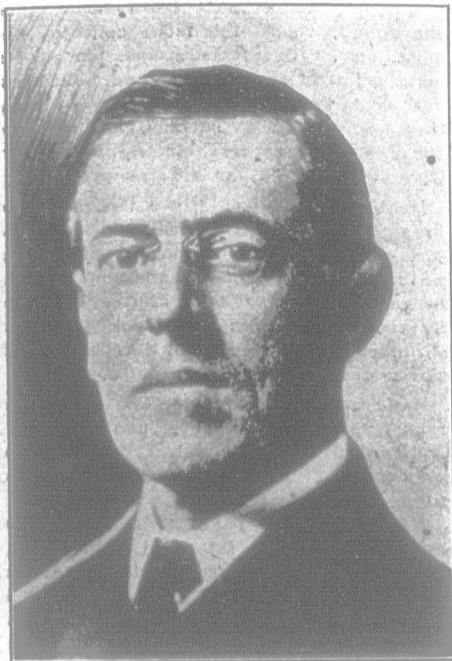
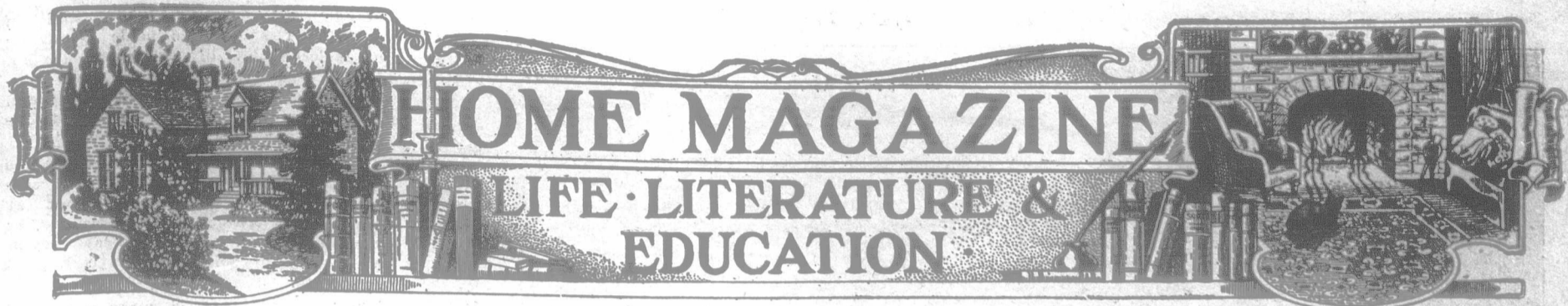
Nov. 21, 1912—Dr. McEachran, Orms-town, Que.; Clyde fillies.
Nov. 27, 1912—D. C. Flatt & Son, Hamilton, Ont.; Clyde fillies.
Dec. 5, 1912—Porter Bros., Appleby, Ont.; Shires.
Dec. 17, 1912—W. G. Wilson, Goring, Ont.; Shorthorns.
Dec. 18, 1912—W. A. Bryant, Cairngorm, Ont.; Holsteins and Oxfords.
Dec. 31, 1912—C. R. Gies, Heidelberg, Ont.; Holsteins.
Jan. 1, 1913—Geo. Rice, Tillsonburg, Ont., manager; Holsteins.

TRADE TOPIC.

THROUGH PULLMAN SLEEPING CAR TO OTTAWA VIA GRAND TRUNK RAILWAY.

The Grand Trunk Railway operate a through Pullman sleeping-car (electric-lighted), to Ottawa, leaving Toronto 10:45 p. m., daily.

Berth reservations and full particulars may be secured from nearest Grand Trunk agent.



Woodrow Wilson.
President-elect, United States.

The New President of the United States.

As all the world knew, by flash of telegraph and telephone on the night of November 5th, Woodrow Wilson is to be the next President of the United States, and will assume office on the 4th of March, 1913. Perhaps his election was generally expected; the surprise comes in the overwhelming submersion of the Republican party. True, it was divided—Roosevelt's Progressive movement took away 76 electoral votes that it might otherwise have had—but, even so, the record, "Wilson, 432 electoral votes; Roosevelt, 76; Taft, 23," reveals a dissatisfaction with prevailing conditions to a degree as overwhelming as unsuspected by the world at large. Perhaps the regime of the Republicans has been too long for political health; sixteen years continuance in office usually means a need for "new blood." What the Democratic party will do towards ameliorating unsatisfactory conditions remains to be seen. Every election is, to a great extent, a trial. The old regime has not been all that could be desired, let's try a new one. Perhaps it may be better. "Le Roi est mort; vive le Roi!"

The new President is, perhaps, the most scholarly man who has ever aspired to the Presidential chair of the great country to the south of us, but he is far from being of the merely academic type. Foes, as well as friends, have agreed (perhaps his foes were not foes in those days) that he is a man of keen insight, as well as of brilliant intellectual ability.

Briefly, his biography up to date, is as follows: Born during Christmas week of 1856, in Staunton, Va., he was from early years a student of books and of men. In 1883 he entered Johns Hopkins University, where he took his degree. Subsequently he held professorships at Bryn Mawr and at Princeton, where he held the chair of jurisprudence and politics until 1902, working meantime on his "History of the American People." In 1902 he was elected President of Princeton, but was called from his work there to the brilliant political career which has been his as Governor of the State of New Jersey.

That he is a thorough gentleman, as well as a thorough politician, is evident from his prompt cancellation of all speaking dates immediately on hearing

of Mr. Roosevelt's mishap at Milwaukee, and his firm refusal to speak or work at all in his own behalf so long as his opponent was not able to meet him on fair ground.

Mr. Wilson has declared that his policy as leader of the Democratic party of the United States, will be to urge, as rapidly as may be practicable, reform along many lines. He will be the active "liberal" in contradistinction to the move-easily "conservative." He stands for concrete terms, direct primaries, a short ballot, and, when necessary, the referendum and the recall,—in short, as he puts it, for "the placing of the machinery of political control in the hands of the people." He aims at fighting the monopolies of the country, primarily by lowering the tariff, secondarily by the regulation of corporations themselves, specifying especially the "money monopoly." His platform, he declares, is constructive, and constructive with a view to serving the whole people, so long exploited for the benefit of the few. "Oh, the greed of these men," he exclaims, "the indulgence, the eternal indulgence of selfishness!"

The working out of those principles which the new President has declared, will be watched with interest by the people of Canada. There is no use of shutting one's eyes and refusing to see,—the fact remains that, because of mere geographical proximity, if nothing else, the fortunes of Canada must be interlaced, more or less, with those of her estimable neighbor across the line. Hence, is it that the Dominion watches with little less interest than in her own affairs, the elections and courses of events in the United States.

A Trip to The Trossachs.

By Marion Bell.

A July day, and bound for the Trossachs! Could a prospect be more pleasing?—for the mere announcement of the Trossachs suggests the beautiful, the romantic, and the historic, all combined, but the actual experience more than realizes all that could be imagined.

It was one morning early in July that a number of Canadians met at the Low Central station in the city of Glasgow waiting for the train, which was to begin the trip to the Trossachs, for us. Just on the dot, for trains in Britain are almost invariably on time, the train pulled up, and our party boarded the cars, marked "reserved." We found that the train, unlike ours, is divided into many very small compartments, in which are two seats facing each other, with a door on each side, the upper half being of glass, thus serving for windows as well. Thus, we had to divide our party into sections, and entered the train. We had a very fast ride, and we soon had to get rid of the idea that it is only in America that we have speed. Our train journey was short, but in the meantime we caught glimpses of the beautiful landscape. We came to a standstill at Balloch, a name we found a little difficult to pronounce, as well as many of the other Scottish names we had to incorporate into our geographical vocabulary.

We left the train at Balloch, and swung in file again to find the steamer, "The Prince George," which was to convey us over Loch Lomond, that name so long heard of in song and story, and which now was spread before us in reality. Everyone safely on board, we were soon gliding over its calm waters, with the beautiful panorama of hills rising on either side, one behind the other, and alternate with it. A mist passed over the hills, and showers fell on us, so we had to crowd together in the small

cabin. Soon the sun shone out again, unfolding before us the beautiful coloring of the braes. The run up Loch Lomond had double fascination for the Scotch-Canadian, who was familiar with the stirring history of his antecedents. There were some islands dotted about the lake, which furnished the battle-cry of some of the clans. There were the yew trees which Bruce planted for getting bows for his warriors. It was along these shores that Sir Walter Scott gathered much of the material for Rob Roy. All too soon we came to Invernaid, where we left our boat and sought our coaches, for we were now to have a drive of five miles to Stronachlachar.

All provided for, we were clattering over the fine stone roads of Scotland. We saw many picturesque pastorals: there were the long-horned sheep grazing upon the hills; here were the carefully-tended vegetable gardens beside the thatched cottages; again were rugged stretches dear to the artists' eye, though useless in the estimation of the utilitarian. At some of the more lonely spots, Highlandmen appeared to greet us with the sound of pipes, and it seemed here to be the proper atmosphere for them.

After arrival at Stronachlachar, we hied away to the steamer, the Sir Walter Scott, and we were soon enjoying the enchanting vistas about Loch Katrine. We could appreciate the reality of the scenery of the "Lady of the Lake" after this sail over Loch Katrine. There was Ellen's Isle, a bower of beauty, and the surrounding hills that must have produced the echoes of Fitz-James' horn in foregone days. After a short sail, we came to a rustic pier, near the Trossachs Hotel, to which we proceeded. We dined there, and the well-dressed porter and waiter gave us quick service, for carriages were awaiting us to convey us to Callander.

Another delightful drive over the beautiful roads, with heads turned to drink in the beauty of the scenery. A quiet meadow, with shaggy, Highland cattle resting or grazing upon it, met our eyes on one side, and farther, giving a touch of modernity or commercialism to the scene, were some men gathering bark for tanning purposes. Those of the party, too, who were familiar with "The Lady of the Lake," thought this a most fascinating drive, for here was the visual story in the Brig o' Tark, Ben Ledi's Height and Coilantogle's Ford.

Again at the jumping-off place, and now it was Callander, which gave us the impression of being a thriving town, very substantially built, with its stone buildings and stone dykes. From Callander, we took train for historic Stirling. On arrival there, we secured carriages and drove about to see the places of interest. We were at the Bore Stone, where Bruce planted his standard and saw the ground where the opposing armies stood, and where he did his arduous work previous to the Battle of Bannockburn. Stirling Castle overlooks the field, and stands on a very forbidding precipice. Access, however, can be gained on one side, where there is a more gradual ascent. We passed over the moat, through the portcullis gates, and thence through its several apartments, a number of which are now used as barracks for soldiers, but the rest open to the public, containing souvenirs of historic import. From the esplanade of the castle, we got a magnificent view of the fields below, cut in fantastic shapes, with the lofty background of Ben Ledi and Ben Lomond. From Stirling Castle, we drove to the Wallace monument, one of the most conspicuous objects in the city on account of its elevated position.

We returned to the antique station of Stirling, and as it was now dark, we took train back to Glasgow with the consciousness of having enjoyed a well-filled day. At the end of it, we had the assurance that we could not have spent a lovelier day, for "in natural loveliness of scenery, variety of storied interest, and unending summer charm, there is nothing in Scotland that can surpass the Trossachs' tour."

Hospital Nursing at Home.

[By Elizabeth Robinson Scovill, late Superintendent of the Newport Hospital.]

FEEDING THE SICK.

In illness, food is as important as medicine. If the digestion is over-taxed by the wrong kind of diet, or by food given in too large quantities, the patient suffers. On the other hand, if the nourishment is not sufficient, or of a nature that cannot be absorbed easily, the strength declines. Doctors, as a rule, do not give very particular directions about diet, except perhaps in typhoid fever, and the nurse is left to use her own judgment in the matter.

A WISE MEASURE.

When a person has been ill only a short time, it is best not to press food if there is an unwillingness to take it. Most people eat more than is necessary to maintain them in health. When illness comes, if the digestive tract has an opportunity to get rid of a mass of half-digested material, it is best to allow it to do so without adding more to it.

When a child, or even an adult, feels unwell, it is a wise precaution to fast over one or more meal-times, taking a little milk and water, or a cup of tea, if there is a sensation of hunger. The rest does the stomach good, and prepares it the better to receive and absorb the liquid diet that will be given if the illness proves serious.

THREE CLASSES.

Food for the sick may be divided into three classes, liquid, semi-solid, and solid. When there is high fever, the diet is usually restricted to fluids, although of late years it is becoming the practice to give semi-solid food in typhoid fever, and some doctors allow even bread. However, liquids are usually the only form of nourishment permitted, and it taxes the nurse's ingenuity to make the patient take all that is prescribed.

If the patient is conscious, a good nurse manages to vary the monotonous bill-of-fare to make it as attractive as possible. If the sufferer is unconscious, the task is an easy one, as it is only necessary to give the required amount at regular intervals.

It will be found a great help to keep a sheet of paper with the hours when the food should be given plainly marked on it, and to check off under these the time and amount of food given. This prevents mistakes, and makes it easier to report to the doctor just how often nourishment was given, and how much was taken.

LIQUID DIET.

Milk is the staple in liquid diet; it may be given either with or without the addition of raw eggs. Next to milk comes gruel, made from different cereals, and lastly, meat broths, beef, mutton, etc. Those who are not fond of milk tire of it very quickly, and it requires much patience and ingenuity on the part of the nurse to get the necessary amount



IN THE TROSSACHS. (SEE PAGE 1979 FOR THE PATH). E. J. V.

In the Trossachs.

taken. She must disguise the taste in different ways, and modify it so that it will not excite disgust.

Milk.—If milk cannot be digested alone, lime-water may be added, a tablespoonful to a glass of milk. It can also be peptonized, or partially digested, before giving; tablets for peptonizing can be obtained at a druggist's. Sometimes, diluting it with plain water will answer the purpose.

There are many flavorings that can be added to milk to make it more palatable. As a rule, the taste is dulled in severe illness, but in lighter cases the patient is very glad of any change that can be devised.

Sometimes a little sugar can be added and the milk flavored with a few drops of vanilla, extract of almond, or rose-water. Occasionally a little salt is relished. One or two teaspoonfuls of coffee, or tea, takes off the insipid taste that is disliked. Cocoa may be used if it agrees with the invalid.

Milk and Eggs.—When more nourishment is needed, the milk can be enriched by adding raw eggs. Albuminized milk is made by putting a glass of milk and the white of one egg into a self-sealing jar, screwing the top on firmly, and shaking for three minutes until the contents are thoroughly mixed. Pour out, and let the milk stand until the foam has subsided.

An egg can be lightly beaten with a fork, and a glass of milk added to it gradually, still beating, with sugar and flavoring if desired. If the whole cannot be borne, half the quantity can be given at once. The yolk of an egg contains principally fat. If it cannot be taken with milk, it can be taken alone, the juice of an orange added, and a dash of lemon juice, if liked.

Buttermilk.—When the acid taste is not disliked, buttermilk can be given to advantage to vary the diet. Very extravagant claims have been made for it, such as that the lactic acid it contains destroys the bacteria in the intestinal canal, which poison the system, and that if drunk persistently, and in sufficient quantity, it prolongs life to extreme old age.

Whey.—If the digestion is very much out of order, milk may have to be withdrawn altogether, and then the question of a substitute for it becomes a very pressing one. To make it, put a teaspoonful of liquid rennet into one pint of warm milk—it must be lukewarm, not hot. In a few minutes the curd will form. Break it up with a spoon, and

strain off the whey. Sugar may be added, and if stimulant is allowed, a very little sherry.

Koumis.—The original koumis was made in Arabia from mare's milk. We make it of cow's milk. To one quart, slightly warmed, add two tablespoonfuls of sugar, and the same of liquid yeast, or one-third of a yeast cake. Set near the fire until bubbles begin to rise, then stir down, fill pint bottles not quite full, and tie down the corks. Keep in a temperature of 65 degrees, and use in three days.

Albuminized Water.—When no other food can be retained, the white of an egg can be shaken with a glass of cold water,

in a jar, and a teaspoonful given at short intervals. A little salt makes it more palatable.

Gruels.—When milk cannot be easily digested, gruels may be made with water. The cereal should be well boiled, though this is not as important when flaked oats, or other grain that has been previously prepared, is used.

Gruel should be thin enough to be easily drunk. It may be made with water, and then thinned with milk. Either salt or sugar can be used to flavor it, though, as a rule, the sick do not care for anything sweet. A little cinnamon is a pleasant addition.

Oatmeal, barley, corn meal, rice, corn-

starch, and arrowroot, are used in gruels. The latter is made by mixing a tablespoonful of arrowroot to a smooth paste with cold water, then pouring boiling water on it until it thickens. The water must bubble, or the arrowroot will not cook.

A double boiler is useful in making gruel, as there is no fear of the contents burning. When one is not at hand, a tin kettle, small earthen jar, or granite pan, closely covered and set in a saucepan of boiling water, is a good substitute.

Beef Juice.—This is more nourishing than beef tea, as no water is added. There are various ways of preparing it. Cut a pound of meat from the top of the round, where the meat contains the most juice. Cut it in strips, place them on a gridiron, or toaster, and hold them over a hot fire for a moment to bring the juice to the surface, and squeeze them in a meat press, or lemon-squeezer. Give it very cold, or hot, as preferred.

Heated Beef Juice.—Place the meat, cut in small pieces, in an earthen or glass jar, stand it in a kettle of boiling water, pull this aside and keep it simmering gently for two hours, or more if the meat does not look pale and shrunken, as if the juice were extracted. Cover the jar closely while cooking.

Beef Juice and Cream.—The juice that runs from rare roast beef can be saved, and mixed with an equal quantity of hot cream. Add salt and pepper to taste.

Mutton Broth.—Take two pounds of lean mutton, the fat and skin having been carefully removed, add a quart of water and a pinch of salt. After it boils, simmer slowly for two hours. Strain and serve.

Egg Broth.—Beat an egg very light with half a teaspoonful of sugar and a very little salt. Pour on it slowly one cupful of boiling water, stirring constantly to prevent curdling.

Meat Broths.—Broth cannot be depended upon as a sole nourishment; it lacks some important food elements. It makes a pleasant variety in the monotonous diet of the sick, and acts as a stimulant to the stomach, enabling it to digest milk better than when the latter is given alone.

Beef Tea.—This is always the first thought of when broth is ordered. Round steak is a good part of the meat to use for it. Cut a pound of steak into small pieces and cover it with a pint of cold water. When it boils, set it back on the stove, closely covered, and let it



Loch Achray and Ben Venue, the Trossachs.

simmer very off the liquid. Baked Beef into small pieces of cold water other earthen oven, which two hours. hot.

Veal Broth.—In the same way may be seen or mace, with added, besides.

Oyster Broth.—Thin cream oyster liquor of cornstarch and add to until it thickens. It is salt, add the flavor.

Clam Juice.—Thickened in plain, either very nutritive retained when down. The juice is very

peppery when given. **Milk Soup.**—For convalescent various vegetable mixture with tomato, cauliflower, and

table can be same in all and mashed milk heated rubbed together combined, and boil, then serve.

APPLIANCES.

When a patient sits up to the side of the bed, the little height of the pot makes a

A bent-glass can be used without lifting. A piece of glass used for a

to clean. If the sick nurse may sit on the side of the bed, away from the full of liquid, trickle through teeth, and sometimes of the spoon.

simmer very gently for an hour. Pour off the liquid, season, and serve.

Baked Beef Tea.—Cut a pound of beef into small squares, cover it with a pint of cold water, put it in a bean-pot, or other earthen jar, or casserole, in the oven, which must be cool, and bake for two hours. Season to taste, and serve hot.

Veal Broth.—Broth is made from veal in the same way as mutton broth. It may be seasoned with a little nutmeg, or mace, with a dust of red pepper added, beside the salt.

Oyster Broth.—Add a cup of milk or thin cream to the same quantity of oyster liquor. Rub up one teaspoonful of cornstarch with a little cold milk and add to the boiling mixture, stirring until it thickens. If the oyster liquor is salt, add less, only enough to give the flavor.

Clam Juice.—The juice of clams can be thickened in the same way, or given plain, either hot or cold. It is not very nutritious, but will sometimes be retained when nothing else can be kept down. The bottled or canned clam juice is very good. A very little cayenne pepper makes it more stimulating when given as an appetizer.

Milk Soups.—These are suitable for convalescents, and are made by adding various vegetables to milk, binding the mixture with a little flour. Potato, tomato, celery, asparagus, green peas, cauliflower, in fact, any delicate vegetable can be used. The method is the same in all. The vegetable is cooked, and mashed through a colander, the milk heated, a little butter and flour rubbed together is added, the mixture combined, and allowed to come to the boil, then served immediately.

APPLIANCES FOR ADMINISTERING.

When a person cannot be raised, or sit up to take food, a feeding-cup with a spout should be provided, or one of the little half-covered feeders sold for the purpose. A small earthenware teapot makes a good substitute.

A bent-glass tube is useful, as the patient can draw thin fluids through it without lifting the head from the pillow. A piece of rubber tubing can be used for a short time, but is difficult to clean.

If the sick person is unconscious, the nurse may insert her little finger in the side of the mouth and draw it gently away from the gum, pouring a teaspoonful of liquid into the opening. It will trickle through the openings between the teeth, and find its way down the throat. Sometimes rubbing the lips with the tip of the spoon will induce even an ap-

parently unconscious person to open the mouth so food can be introduced.

In the next paper, suggestions will be given for semi-solid and solid food.

Objects and Benefits of The Women's Institute.

[A paper given at the Garden Hill branch of the Women's Institute, by Mrs. F. Irwin.]

In the first place, may I ask: Is the Institute a benefit to the community and to ourselves? My reply is, yes; if each member is zealous in her work for the Institute. One great advantage of the Institute is the bringing the people of the community together so that they may become better acquainted with one another. Now, do you not think this is a great privilege? Just take our own community: There have been neighbors living quite close together whom we have seen frequently for years, and never became acquainted with until the Institute was organized, and now we number them among our very best friends. Then, the papers that have been given, and the discussions following, have been a great benefit to visitors, as well as to members. Truly, the social side is a very important part. Again, the educational part of it cannot be too highly estimated. We are taught, through the channels of the Women's Institute, better methods of doing our work, each in her own sphere. The progressive individual is bound no longer to one idea; the plan we have always followed may be made better by following the ideas of others. Also, we have learned to take better care of our health. We are none of us too old to learn to discard wrong methods for the right ones, and to undo mistakes resulting from ignorance in the past.

I do not claim perfection for our Institute, for that organization has not been thought of that none can find fault with, but—are we benefited by meeting together? It would be impossible to give a list of benefits to be derived from Women's Institutes, they are so numerous, but I will give a summary:

- 1st. The fact of being banded together has broadened our ideas, and has made us more liberal and tolerant towards the methods of others.
- 2nd. Many useful hints on cooking, and everything pertaining to the household, have been interchanged.
- 3rd. The importance of women's everyday work has been given a prominence in our minds never before thought of,

with the result of added interest in our work.

4th. By coming together at the meetings, often from distant points, the women of our country become better acquainted, and are thus more sociable.

5th. Our local Farmers' Institute and our own feel mutually helped by working together. In proof of this, the last report of the Farmers' Institute shows that it has been of more benefit to the farming communities than any organization that has been introduced, and the Women's Institute promises to even surpass it, as it has a wider scope than the men's. It is not confined to the farm alone, but deals with even higher subjects. The women realize that they need instruction in proper methods as well as their husbands, and thus we can make ourselves new men and women by giving attention to the benefits of our Institutes.

The best way to increase our membership: If I were to give an outline, it would be something like this:—Interest in others; knowledge of work; love to work; unity. Combined efforts will bring about, without fail, an increase of membership. Have something under cover for emergencies. Have a miscellaneous programme at our meetings, variety, and something adapted for all women, so that they may all take a part. We want a little nonsense with a great deal of sense for our meetings. We like to hear from cooks, needlewomen, nurses, artists, clergymen, medical doctors, bachelors of art, and King's counsels. We should have a varied, instructive, beneficial, and humorous programme, which should suit the taste of each and every member of the Women's Institute.

Some Old-Time Echoes.

ON TREK IN THE TRANSVAAL.

XIII.

The 5th July found us out-spanned for breakfast by a farm at the foot of the first hill of the Waterburg Range to which we had seemed so close during the terrible storm of the night before, but from which we had actually been some miles away. There the grasses were remarkably fine and in great variety.

Fine trees, blue gum principally, planted only four or five years ago, but over fifty feet high already, bounded the homestead on one side, and a beautiful orange-grove the other. Several wagons were out-spanned amongst the trees with women sitting sewing and children playing, as much as Dutch children can

play, around them. Altogether the spot seemed more inhabited and village-like than any through which we had passed. The dreary isolation which had chilled us as we had looked back upon the lonely homes to which these people of free will had banished themselves, and in which we had seemed to leave them more lonely still as we trekked slowly by, was not so striking here, and these good folks looked all the brighter and keener-witted in consequence.

SOMETHING ABOUT THE SJAMBOK.

The first object which caught our eyes was a huge banyan-tree, of great age and beauty. From its boughs were suspended a large number of giraffe skins, looking gaunt and lanky, and, at first sight, as if they were the animals themselves. These were drying, previously to being cut into strips, which strips go through several processes before they emerge into reins and whips—whips of a power to lacerate and sting which it makes one shiver to think of, and rouses one's sympathy for the poor animals which, many of them, carry the scars to the grave.

But the word "grave" misfits my meaning.

The South African ox rarely has a grave. Where he falls he lies, till kind Death releases him, and then the birds of the air finish what the jackal leaves of him, or he works until he can work no longer, and then man, his master eats him also, only in more civilized and appetizing form. The sjambok (pronounced shambok) of this country is a whip to be remembered. The strips of which it is made go through repeated and continued soakings. They are then suspended from an iron hook in the centre of a gibbet-like erection and a Kaffir (possibly more than one) hangs on to them, leaping, and jumping, and swing round and round looking like a dancing Dervish or a black acrobat in training until each strip has acquired its expected hardness and is stretched until it can stretch no further.

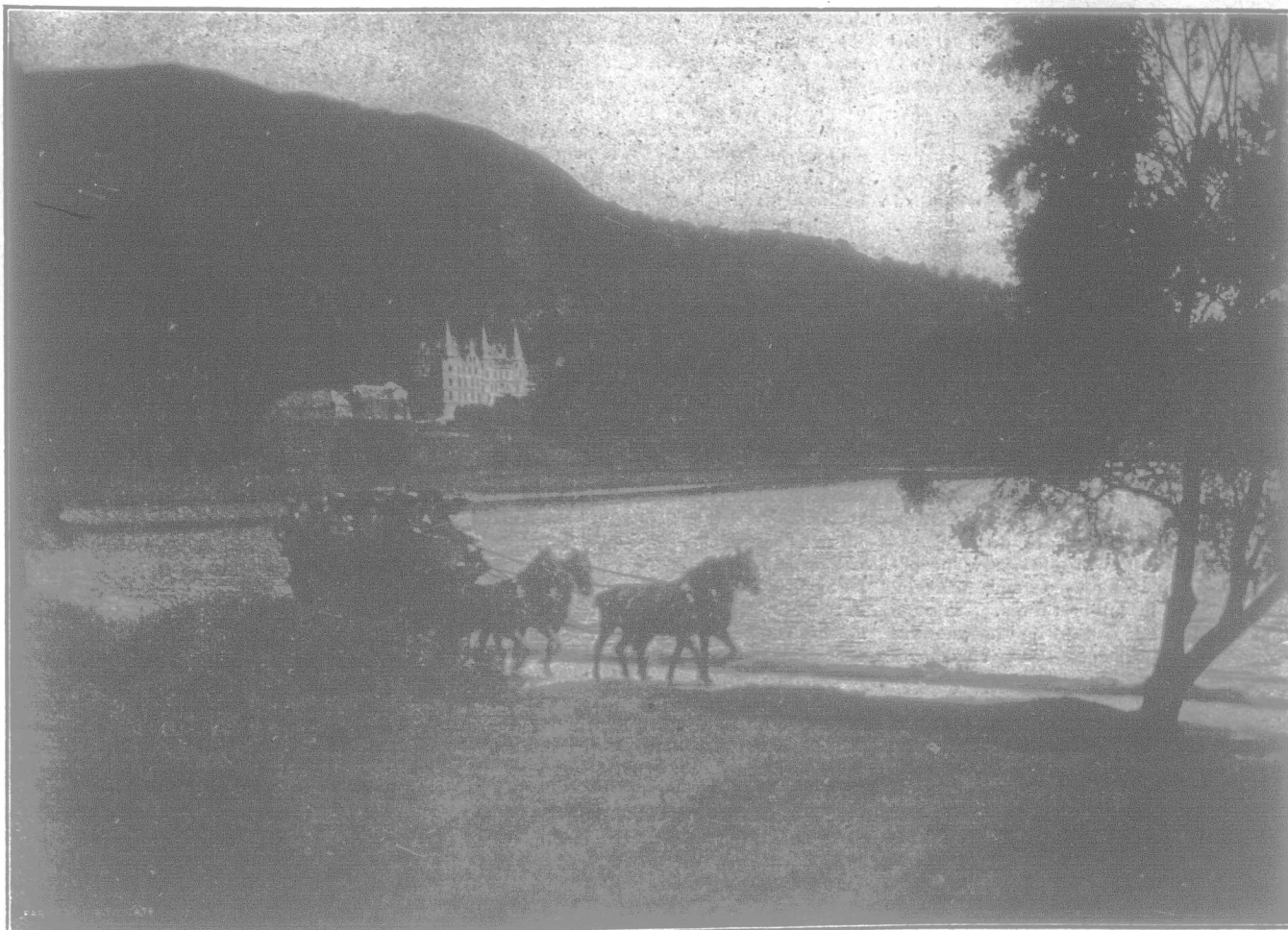
Telling of this process reminds me of another, of a type equally primitive and one which may not be without an interest for Canadian farmers, if only by way of contrast to their own "luxuries of labor."

It is that of threshing and dressing the corn. The sheaves are thrown upon the ground of a cleared circle of large circumference, and into this circle are turned ten, twelve or even more unshod horses, a boy standing in their midst with a long bamboo whip to see that they tramp about briskly until the threshing is satisfactorily accomplished. The winnowing, etc., is managed after as simple a method merely by rubbing the corn through the fingers, and letting the wind carry off the chaff at the same time.

On the 5th July, our log records:—"Our lines have fallen in pleasant places," say we, as we start after our breakfast from the German Mission Station, bearing with us as gifts the contents of a huge pan of oranges, of which refreshing fruit we do not tire, although we eat them wholesale. * * * We were very pleased with the mission station in every respect. There was an air of settled repose, and yet of growth good to see. The Kaffirs, men, women and children, all clothed, the women engaged in domestic labors, and the children trooping to school at the sound of its cheerful bell as naturally as any of our English little ones at home. A foundation is laid for a church, and in its eventual uprising amongst them the Kaffir inhabitants of the place manifest much interest. It is their loving hands which plant flowers upon and tend the well-kept grave of the pastor, who has been taken from them, and to whose memory they thus love to testify their enduring respect.

Birds of all sizes and of brilliant plumage, chirped and coquetted around us, seemingly without fear. Hawks, eagles, buzzards, and the secretary bird, besides many smaller sorts, none of the latter keeping up a continuous song, but twittering conversationally, and apparently all in high good humor with one another. Several of the parrot tribe peeped down upon us with that quizzical air common to their kind, as we fed under the boughs upon which they perched.

The secretary bird is the great snake-killer of South Africa. With keen eyes



Trossachs Hotel, Loch Achray.

it spies its victim afar, pounces upon it, and seizing it just where, by instinct, it knows it can best paralyze the creature's powers of resistance, flies up into the air with it, and drops it from a considerable height, again and again, until life is extinct.

7th.—We have actually no lion adventure to record, and yet we are passing through well-known lurking places, and through the scene of more than one dreaded encounter. That we have escaped unscathed is not owing to any valiant defence we have made, for we were called upon to make none. * * * Hearing that a blaze was a safeguard, a blaze last night we determined to have. All hands collected huge piles of wood, so as to ensure three good fires at least. The oxen, our number having been increased by a relay of eight at the mission station, which had been sent there for our use, were fastened to the trees, instead of as usual to the trek-rows of the wagons, lest, in case of a scare, they should do the latter, and ourselves within them, damage difficult to repair.

"Game must have been plentiful further away," was John's solution of our immunity from attack last night. "It's this way with the Lion, Missus," said our driver. "They try first for the oxen if they can get a chance at them. Then they like the colored boys next, and then they only eat the white folks when they can't get us, so Missus would have the finest chance of all," which was a poor consolation at the best.

Tigers are met with about this and other localities through which we have passed, and through which we must pass presently. Traffic and sport have driven these creatures farther away into the wilds, and it is principally when scarcity of game makes them reckless in their hunger that down-right attacks are to be feared.

Perhaps amongst our frequent out-spans during our long journey none come back to my mind more vividly than one on the banks of Pinaar's River. Before breakfasting I had asked John at what hour, knowing it to have been an early one, we had begun our day's trek. "Before the morning's sun was up," was his reply, one surely which had a touch of poetic feeling in it, attuning our minds to the surroundings in which we had found ourselves.

We had accomplished the ford easily, and from our bank could watch the passing over it also, stopping to drink midway of herd after herd of cattle, oxen, sheep, goats, etc., driven by their attendant Kaffirs, each with his gun to protect his charge from lions, jackals and other wild beasts. There were children, Dutch and clothed, or Kaffir and unclothed, or nearly so, and dogs innumerable. A Dutch camp was pitched just on the other side, the white tents glistening among the trees. The water sparkling and bubbling we could hear better than we could see, as the overhanging foliage upon its winding banks jealously hid it from distant gazers, whilst adding to its charm on a nearer view. As we left our camping place, other wagons had just crossed the river, taking our place upon the sward. My husband seemed as though he could not tear himself away, so fascinated was he by the scene. "H," he said, when that far-away look had died out of his eyes, which had shown me how his thoughts had wandered, and whither, "we have been living out as it were a chapter of old Bible history to-day. It is almost too vivid. And they were dwellers in tents," he murmured, as this living tableau of patriarchal times was shut out from our view by the windings of the road which led us away from Pinaar's River.

I do not quote all that any notes had to tell of old tragedies upon the ruined tracks of which we sometimes pitched our camps, nor of the indications of the coming troubles which before long befell the dwellers in South Africa. From time to time we were overtaken at our outspans by bands of Kaffirs, principally Amas-wazis, who, being friendly to the Dutch, counted upon them as allies against those of their own color when the tocsin of war should be sounded.—What was then recorded might have been deemed prophetic, now that it has all come true it has passed into history.

H. A. B.

Hope's Quiet Hour.

The Science of Living.

What doth the LORD require of thee, but to do justly, and to love mercy, and to walk humbly with thy God.—Micah vi.: 8.

We find ourselves in this world without our own choice, and most of us have little chance of choosing our own work or environment. But that is no reason for letting the great opportunity of life drift past us unused. One person is tremendously interested in the science of money-making, another devotes all her energies to making a success of house-keeping, another is willing to sacrifice time and comfort to the science of making friends. There are plenty of objects to which men and women devote themselves patiently and perseveringly. But there is one great science which is the rightful business of everybody—the science of living. We have been told about "the man who was too busy to do his duty," who shouldered such a lot of work that he scarcely had time to become acquainted with his own wife and children. There are plenty of women like that. Copying the immortal "Mrs. Jellaby," they load themselves down with some self-imposed "mission," while their families have to suffer the consequences in the shape of neglect, pre-occupation of mind and irritability of temper (the natural result of over-strain). That doesn't seem to be exactly the way of mastering the science of living, does it? Often the best and most conscientious people act in this way. I know of one such case. A young man seemed to be starting out on a career of great usefulness. He was a burning and a shining light, respected by all who knew him. But he paid no heed to God's command about one rest-day in each week. The week-days were spent in earning his living, the evenings were enthusiastically devoted to philanthropic work, Sundays were filled with classes and services, so that he had scarcely time to sandwich in a hasty meal or two. He was little more than a boy when his over-taxed physical strength gave way and he had to stop his cherished work, dying after an illness of a few days. "God takes away His workers, but their work goes on." Yes, but when He places a soul in a body, He expects the soul to have some mercy on that body. God is a Father. Does any kind father want his children to kill themselves in working for him?

We have a certain number of years committed to us in trust, and it is our business to spend them to the best advantage. That is the science of living. It is most important that we should learn the best way of living while young; so that none of these priceless years, which are given one by one into our hands, may be thrown away. If we recklessly waste the golden days of youth, it is quite impossible to go back at thirty or forty and redeem them. But, even in old age, we are not too old to begin the science of living. Our Lord has told us that some of the laborers in His vineyard, who only join His company of workers one hour before sunset, will receive a full day's wages. But, if we are to spend our lives to the best advantage, we shall work for love instead of for wages, and shall earnestly desire to pour out the treasure of a whole life in our Master's service. If we can please Him, we shall be living splendidly. How are we to do it?

It is wonderful how the Hebrew prophets insisted on the real things, that is, the secret and invisible things. Though God Himself had ordained the outward ceremonies—the sacrifices and ritual of the Temple services—every one of the prophets declares that holiness is the priceless treasure, without which even the offerings which God had commanded were an abomination in His eyes. The prophet Micah asks how we shall come before the high God. Will He be pleased with the sacrifice of thousands of rams, or with ten thousand rivers of oil? Does He demand the surrender of our dearest possession?

Then, the question is answered in the words of our text: "He hath shewed thee, O man, what is good; and what

doth the LORD require of thee, but to do justly, and to love mercy, and to walk humbly with thy God." If we can master these points, we shall be living our lives to the full, for they cover the whole ground.

"To live justly": that would stop every attempt to gain something for our own advantage at the expense of another. Perhaps we women might not be so keen about "bargains." Last spring I heard something about bargains which startled me. Some sewing-girls, I was told, are forced from time to time to cater for the public demands by doing what they call "bad work." This is work done for a smaller price than usual, so that it may be advertised and sold at a cheaper rate. Women rush to get ready-made garments at less than the ordinary price, and the "sweaters" lash their weary workers because we demand it. Yet we don't mean to be merciless. If we "live justly," we shall never try to squeeze as much work as possible, for as little pay as possible, out of anyone who works for us. On the other hand, we must not give second-class work while trying to obtain a first-class salary. We must also be just in our opinion of other people, not criticising them severely for faults which we think lightly of in ourselves, not condemning them unheard when we have been told something against them. We must be just to ourselves; trying to cultivate the "body" by reasonable rest, exercise and fresh air; the "mind," by reading and intercourse with other people, and by thinking more and talking less; the "spirit," by communion with God and His friends, and by meditation. If we are going to "live justly," it will take a lifetime.

Then, think of the next duty, "to love mercy." That means, it seems to me, that we must ENJOY being kind. There can be no conceit about money given to the poor, about church-work, about any kindness we may have done. We don't feel very virtuous when a friend gives us a present; and, if we "love" mercy, then the chance offered to us of doing a kind turn to somebody is a gift of something we love. How very dreary life would be if we never could show a kindness to any of God's creatures. If we could not give a bone to a dog, or a little water to a thirsty flower, or put a dainty bunch of fresh flowers on a guest's bureau, or offer a prayer for those who are dear or are in need; then we might have good reason to feel defrauded. Every morning we wake up with the sunshiny thought that we shall have chances of being pleasant and kind. Even those who live alone can be kind in their thoughts, and feel pleasant. A big part of the science of living consists in being pleasant always, even when things are at sixes and sevens, and everyone seems grumpy. Wasn't it an Irishman who said that the moon only shone on bright nights when no light was needed? Well, our business is to be happy when happiness is most needed, and to enjoy being happy. That sounds rather Irish, too, but you know there are people—other people—who enjoy being miserable. At least, they love to dwell upon all their sorrows and aches, looking at them through magnifying glasses, or holding them always so close to their eyes that they have no chance to "consider the lilies." What are lilies for, anyway? They are not good to eat or to wear. You can't build them into houses. I think God made them for our pleasure, because He loves to make us happy. The world is so full of beautiful things—if I may venture to misquote Stevenson—that we who have eyes and ears ought to be far happier than kings usually are. Consider the dandelions and the buttercups, the peaches and sunsets, the dainty humming birds, and the gorgeous peacocks. If we really take notice of all the delightful things about us, we may forget some of our big troubles, and grow ashamed of grumbling about the little ones. If we drink in fresh air and sunshine joyously, we shall be so well and happy that we can't help wanting to make other people happy, too. Happiness is wonderfully infectious—so is depression. We can radiate sunshine, or we can act as a gloomy dead-weight wherever we live. The choice lies with each of us every day.

Then we are told to "walk humbly with our God." To walk consciously with Him must make us humble. One is beautiful, and is proud of her beauty, as if she had made it herself. God gave the beauty to be used for Him. Another is proud of wealth and position. Yet God gave both, and can as easily take them away. Another is proud of his intellect. God chose to give him mental power, and opportunity to cultivate it. No man made himself clever, or even the ability to acquire knowledge, or business capacity, artistic or musical talent, or physical strength, comes from God every moment. We could not draw a breath without Him.

How hard it is to walk consciously with God. We dash headlong into work when our morning prayers are said, and perhaps we scarcely remember His Presence once until we kneel down at night, almost too tired to be able to concentrate our attention on our evening prayer. We say that we love God first and best, yet we forget Him for many hours at a stretch—sometimes, perhaps, for days together. That kind of love must be very disappointing to the Divine Lover, Who never forgets us. Listen to Robert E. Speer. He says: "I think very many times of the one I love best. When in the night I awake, my first thought is of her; and, when early in the morning the sunrise comes stealing into the room, my first thought is of her, and constantly through the day my mind goes out to her. I think of all the sweet things she has done, and I do remember her. I wish I might as often, and as well, remember Jesus Christ. Let us begin now."

The science of living is most exciting and interesting. We are a long way from perfect yet, but we can climb a little nearer it every day. The whole secret is wrapped up in the last command "to walk humbly with our God." Let us begin there, and stay right there, or come back as soon as we have left Him and begin again.

"For evermore beside us on our way,
The unseen Christ does move."

DORA FARNCOMB.

Star-Led to the Heights.

A Christmas story, by Dora Farncomb. Price, 35 cents; or three copies for a dollar (postpaid). The William Weld Co., London, Ont.

The Mending Basket

She Likes the Lot of Farmer's Wife.

I have read with a great deal of interest the letters in recent numbers of "The Farmer's Advocate" regarding woman's work or the farm.

After reading Sherard McLeay's letter I made up my mind to write too, but from a very different viewpoint.

I am a farmer's wife with three small children, and until the last month have done all my own work on a three hundred acre farm, and have never had to do as she says the farmer's wife does. The work no doubt is hard and steady, but I have met with very few farmers' wives or daughters who were such slaves as she pictures them, and the few I have met with lived that life because they were over-anxious for the almighty dollar.

As far as my experience goes I have never been afraid of asking for help, and if it was in reason at all I got it. As for helping with the children if they need attention at night it is oftener my husband that attends them than any one else, and if possible he is always willing to take them with him through the day as soon as they are big enough.

I am never asked to do any outside work unless in a busy time. I help one man milk, but I think it would be a poor helper who couldn't do that.

Of course it takes all kinds of men (and women) to make a world, and perhaps my experience has been a happier one than most. Certainly if all that has been written on the subject lately is true I have not known how to be thankful enough for the good husband I have.

To Scottie I would say it never hurts a man to be able to help in the house. I am sure my husband has many times done it, and has helped make things smoother for both of us.

Hoping to hear from other happy wives on the farms I will close with best wishes.

H. N. R.
Haliburton Co., Ont.

Is Marriage a Failure?

WORK ON THE FARM.

So you can't believe, dear Editor, that women are as busy on the farm as Sherard McLeay states. Well, they are, at least the most of them. It is a well-established custom, particularly in Canada, for the women to look after the cows, calves, and chickens, and pigs occasionally. So well established is it that the average woman thinks nothing of it, and is inclined to believe that if her neighbor does not do these chores she is apt to be lazy. In fact a woman told me one day I should have married a bank clerk not a farmer, because I had not weeded the turnip patch. It seems to be a part of their duty like the housework which they would scorn to allow a man to do.

Up in the morning early, breakfast over, hurry to milking, separating milk, washing dishes, (minding babies in intervals), tidy house, get dinner, wash dishes, do mending, sewing, gardening, berry picking, helping in field if necessary, washing, ironing, baking, with the thousand and one interruptions, which come through the day; get supper, put sleepy babies to bed, milk, wash dishes, sew or mend again till bed-time. Don't you think they must be busy? I do not do any outside chores except in a pinch, or if I am alone and I find I have all I can do to keep my house and children reasonably clean and tidy. Sometimes I say to "the man," "Those women with so many little children who manage to do so much work must manage differently than I do," and he answers very dryly, "they do." I was city bred, but I am doing better every year, and should soon be able to hold my own.

It seems to me this whole vexed question of man's and woman's work in the home resolves itself into the question "Is marriage a failure?" which we often see graphically discussed by "great minds." If there is real unselfish love (how rare it is!) in the home marriage is a grand success, and man and wife are so anxious to help one another they almost quarrel as to which shall do the most.

Then, too, it is necessary for a woman to possess self-respect, and demand respect of others. If a woman makes a meek mop-rag of herself you can hardly blame a man for wiping his feet on her (figuratively). I am sure no self-respecting woman would get out in the morning, milk, light fires, get breakfast, feed chickens, pigs and calves, all before she ate her own breakfast. Rather than that she should wake either the boss or hired man to light the fire, then get up, get and eat breakfast, hand the milk-pail to one of the men to help milk, feed the chickens and calves, let the men feed the pigs, tend to milk, and so on. That is the way the majority of the women I know do manage, and the men don't fuss much about it either.

Many women are much to blame themselves for their husbands regarding them as mere household servants. After they become wives and mothers, apparently their interest in the outside world vanishes, and all their thoughts are concentrated on the human beings in their own homes. They only get to town once a year; what they wear does not matter so long as it is clothes; society is a dead letter; books and papers non-existent, newspapers only for the men, and the conversation of the women limited to butter, eggs, husband, children and gossip. They become narrow-minded and quite often fretful, so the man and woman having no outside community of interests drift apart.

The average uneducated man receives more or less knowledge from contact with others, but for the average uneducated woman this means is not available. The woman should spruce up, read more, at least the newspapers and farm journals, and she could then take a more intelligent view of her husband's work and be admitted into a more equal partner-

ship line of work. Women are foolish to allow work to master them. They never should become so wedded to routine that it is impossible to take an outing because it is wash day.

Last, but not least, we should try every day to take a little time to observe the beauties of nature, the sun rises and sun sets, and the beautiful flowers. What is more beautiful than a field of waving green wheat? Rich men spend thousands of dollars to put on their walls on canvas what we can look out of the window and see every day. I am a land-lover. I love the fields with their brown plowed ridges, and later with smooth furrows to indicate where the drill has passed. Seed time is a living example of faith and trust in God who said there should be seed time and harvest. Christ loves the farmer and his wife, I am sure, for they are the useful members of society, the foundation and the keystone.

"The Farmer's Advocate" Fashions.

7592.—A comfortable gown, with Robespierre collar and long sleeves. May be made of any of the soft woollen fabrics, such as serge, with vest of ratine and satin collar. In the illustration, the gown is of silk ratine, with a collar of satin and vest of broadcloth.

7354 and 7553.—Attractive gown, made of any warm woollen material, trimmed with plaid.

7538.—This attractive party dress may be made of flowered silk or mull, or of crepe de chine, voile, or marquisette over silk.

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7354 Blouse with Vestee,
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and Small Women, 16 and 18 years.

The Ingle Nook.

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

Colds.

At this time of the year, colds, perhaps, constitute the greatest menace to health, not that cold weather causes them, for it does not, but because people do not live in such a way as to avoid "catching" them. Colds are caused by bacteria, which are quite as plentifully present in the air in summer as in winter; but in summer, people, for their own comfort, keep doors and windows open, and live much in the open air. Moreover, the temperature during warm weather is such that there is, as a rule, no lowering of vitality to an extent that will make the body susceptible to colds. . . . In the winter, on the contrary, the lowering of temperature is not always met by sufficiently protective measures, and so the bacteria that cause colds get a chance to work. People persist in staying much in-doors, take no pains to keep the air in the house pure, go about with wet feet, or go out insufficiently clothed against the "weather," as a consequence the vitality is lowered and colds are "caught."

May it be repeated, cold of itself does not cause colds. Arctic explorers never suffer from them while in the field, neither do surveyors, who are exposed to all sorts of conditions. The very moment, however, that they return to civilization, they usually celebrate the event by taking colds. They have been living in the open, and in pure air; now they are back in stuffy houses, breathing air more or less laden with cold-producing bacteria, and so the inevitable happens.

All this, then, gives us a clue as to how to act to avoid colds. In the first place, since the disease is bacterial, keep away, if possible, from anyone who has a cold. "The individual suffering from a cold," says Dr. William Sadler, of Chicago, one of the best-known authorities on the subject, "is a health menace to those with whom he mingles." If, however, it is impossible to avoid the cold patient, as, for instance, when one of the children in a family contracts the disease, treat him at once to cure it, and require him to keep away as far as possible from the other children, and to be very careful about his handkerchiefs. It would be better, indeed, to make him use bits of cotton rag that may be burned at once, as the ordinary handkerchief used by a "cold" patient is a reeking hotbed of bacteria.

To return, however, to the phase of the subject with which we started out: To avoid taking cold, go out for frequent walks or exercise in the pure winter air. Never mind if it is more comfortable indoors. Put on plenty of warm clothes, being particularly careful that the feet are well protected against wet and cold, and start off to walk, to snowshoe, or to work in the barn, provided the air there is kept as it should be. Keep the house, by day and by night, filled with fresh air, and, if possible, avoid lowering the vitality by excessive fatigue.—These are the three main essentials. . . . May I repeat that last statement regarding fatigue? "Fatigue, then colds, then death!" says Dr. Irving Fisher. If it is impossible to avoid being greatly fatigued in winter-time, rest as soon as possible, well covered with blankets—and in a room filled with fresh air. A hot drink taken on lying down will be a further guarantee against taking cold.

But there is much more that can be done. In the first place—may I repeat again?—avoid wet feet as you would the plague. The feet and ankles, indeed, are the most vulnerable parts of the body to colds. If unprotected, they chill the internal organs, the vitality is lowered, and the mischief is done. Some object to rubbers, but in the experience of most people, sound rubbers, with warm leggings, are the most satisfactory pro-

ventives against damp feet and ankles yet devised. . . In the words of a French doctor, "Keep the feet dry and warm, the head cool, and the bowels open," if you would keep well in cold weather.

Avoid tight collars, as they favor congestion, and do not wear, for long periods, garments that retain the perspiration. Waterproofed cloth is, for instance, much safer than rubberized material for jackets or raincoats.

Do not permit rooms to be overheated, even though a perfect ventilation system (if there is one) should be installed, because going out into cold air from a superheated atmosphere is a prolific source of colds.

Take frequent baths to keep the skin in good working order, so that it may throw off superfluous matter the better. Warm baths should, however, be taken at night, when one can get into a warm bed at once. At other times of the day the bath should, for strong people, be cold. In fact, a cold bath taken every morning is an excellent hardener against colds. Still better is a rub of strong brine, made with common salt, or sea-salt. "By taking these sea-salt baths every morning," says Dr. Sawyer, one of the leading skin specialists of the world, "persons may make themselves immune to the ordinary ills of the body through exposure, and impervious to cold." Another excellent practice is to rub the body all over with wet salt, then wash it off with cold water, and rub the skin to a glow with the towel.

If one has not time to take an entire salt bath every morning, the chest and feet at least should be well rubbed with the brine, then rubbed to a glow by friction. Keep the brine in a jar beside the washstand so that it will be handy. About one pound salt to four gallons of water will be the right proportion.

Notwithstanding all precautions against infection, cold may be caught,—an hour spent in a crowded church or lecture-hall, where the purity of the air has not been considered, may do the deed—and the question then becomes, "What shall be done to cure the cold?" And right here, don't pin your faith to any "cough mixture." Says Dr. Sadler, "Colds and catarrhs concern simply the circulation of the blood, the accumulation of poisons within the body, and germs. As means of their relief and management, drugs are quite useless, except in the form of throat gargles, cathartics, and local applications to the nose. Quinine, and similar drugs, check the burning up of the poisons in the body, depress the circulation, lower the temperature, lessen perspiration, and diminish the activity of the white blood-cells in their work of destroying the infectious germs."

No drugs; no quinine. What then? The first thing to do in case of a very severe cold, is to limit work as much as possible, to conserve strength; putting the patient to bed, warmly covered, in a room with an open window whose draught is screened off, is beneficial. Next, give the patient a good dose of physic to help carry off the poisonous secretions. If there is dryness in the nose and throat, rub the nostrils with purified borated vaseline, or have the patient snuff up warm, salty water—an antiseptic. The salt water may also be used as a gargle if the throat is dry or sore. Vaseline may also be rubbed over the nose and middle of the forehead, after the fashion of our grandmothers.

Above all things, give the patient plenty of hot drinks,—hot lemonade, hot lemon and flaxseed tea, hot broth, hot buttermilk—all of these are good, and should be given at frequent intervals.

Do not give too much solid food, or any that is hard to digest. The old maxim, "Stuff a cold, and starve a fever," exploded long ago. With every cold there is, indeed, a certain amount of fever.

Hot mustard foot-baths before going to bed, are also very effectual, and, if the cold seems to be on the chest, a course of hot-bran poultices applied to the part. When poultices are taken off, care should be taken that extra protection is given, and that the night-dress, if damp, is changed. Rubbing the chest well with turpentine (turpentine mixed with olive or sweet oil, for little chil-

dren), or with coal-oil, may be resorted to instead of the bran poultices.

For sore throat, the old remedy of putting on a wet cloth at night, bound well with flannel, is often found effective, but, when taken off, the skin should be immediately rubbed with vaseline.

For frontal headache, that often accompanies cold in the head, inhaling the fumes of camphor and boiling water will often give relief, or even inhaling those from spirits of camphor or ammonia in a smelling bottle. At frequent intervals, also, the patient should sniff up warm salt water, a teaspoonful of salt to a tumbler of water.

Doses of onion, sliced, sprinkled with sugar, baked and eaten hot, are said to be very relieving,—one of the old-fashioned helps endorsed by modern doctors.

If all these efforts are of no avail, and the cold seems to be lodged in the chest, and "tight," while the tempera-

ture is high, send at once for a physician; pneumonia may be imminent.

Now, as a last word, do not think that I mean, in all I have said in regard to fresh air as a preventive against and cure for colds, that houses are to be kept wretchedly cold during winter. Houses must be kept livably warm, but do not sacrifice fresh air to warmth. Open windows and doors for a little while several times a day, to let the poisonous airs blow out and the pure ones come in; whenever possible, keep windows open, as widely as the day will permit. In mild weather, you may be able to keep them six inches up, or down, from the top, as the case may be; but in cold weather, when the wind blows in, even a small crack at top and bottom will do wonders. Put on extra clothing and extra blankets on the beds

to make up for the difference in temperature; be sure to keep the feet and legs dry and warm, and the body well enough protected to keep out piercing winds; take every precaution against letting yourself or your children be vulnerable to colds, and then you may defy old King Winter.

Don't depend upon driving for out-of-door air-getting; walking, shovelling snow, splitting wood, snowshoeing, are all a hundred times better than driving for that purpose. Exercise that warms the body and fills the lungs with pure air, will chase away the terrors of the worst winter's day.

One sometimes hears people say, "I have only a cold." There is no cold so light that it may be trifled with. Even the lightest may lead to pleurisy, to pneumonia, or to consumption. All colds—for the species is but one after all—are worth guarding against, worth

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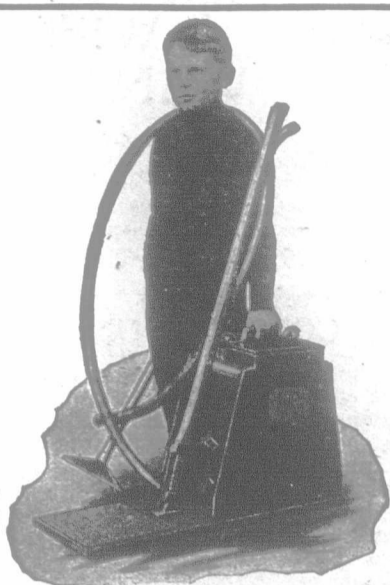
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the most strenuous efforts to cure, if one wishes to escape a possible train of evils. A cold is often the precursor of tuberculosis; then can even a light one be regarded as "only" a cold?
JUNIA.

Angora Wool Hood.

Anyone who knows how to knit will be able to make a hood such as that shown in the illustration. It is made with Angora yarn. The back may be made in one piece, the front being made of a strip which is sewn with yarn to



Angora Wool Hood.

the back. All is done in plain knitting. Finally, ribbon is run through to draw the hood in about the head, and ribbon bows are placed at the sides. Angora yarn is excellent for making little mittens, as well as hoods. It becomes woollier and prettier with washing.

RE CHRISTMAS WEDDING.

Dear Junia.—Having read with interest, from week to week, the information furnished through the Ingle Hook columns, I am writing for information regarding a Christmas wedding.

Should the decoration be necessarily in red and green? How many courses should be served at the reception? Who should rise from the bride's table first? Who should be served first, and in what order the others seated at the bride's table? Would you use place cards? Any information regarding novel touches, either in decoration or luncheon, would be gratefully received.

What would be a cute way for two little boys to carry the ring? Also, are toasts out of date?

ENQUIRER.

You are at liberty to use any color you choose for decorations, but nothing could be prettier for a Christmas wedding than green and red,—plenty of smilax and holly, with red ribbons for tying. Poinsettias are also in bloom then, and, in fact, are taking their place with holly for Christmas decorating; their large, red blossoms, are very effective.

The menu for a reception nowadays usually consists of light refreshments,—oyster patties, cold meats, sandwiches, salads, cheese wafers, fruit, ice cream, cakes, bonbons, salted almonds, olives, coffee, and tea. There is no hard-and-fast rule for the number of courses; that may be arranged to suit the hostess. If you liked, you might arrange your courses as follows:

- First.—Scalloped oysters, with oyster crackers.
 - Second.—Turkey and mashed potatoes, creamed celery or cauliflower, cranberry sauce.
 - Third.—Salads, with cheese wafers.
 - Fourth.—Cakes, ice cream, fruit. The pickles, olives, and salted nuts, would, of course, be on the table.
- By the way, many of our questioners express doubt as to what refreshments at a wedding should be called. May we quote from "Practical Etiquette,"—"There are no wedding luncheons nowa-



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Do you like this style of Coat?

If you do, send for a free copy of our handsome fur catalogue. In it you will find this coat illustrated and see that the price is reasonable indeed.

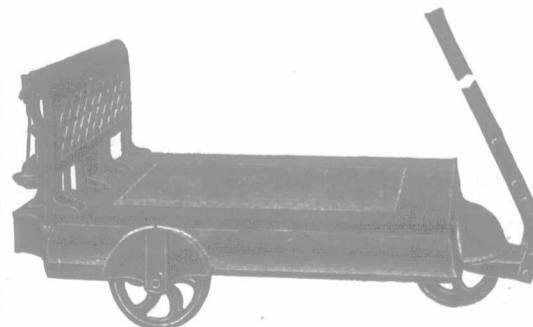
Any lady reader of the Farmer's Advocate who is about to buy furs, should certainly send for a copy of this catalogue at once. For we know that she will find in it just the coat or the muff or the stole that she has set her heart upon getting for this season.

Don't even think of buying furs until you have seen this catalogue. Send for it now. A postal will do. Address:

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days. Every entertainment of the kind, up to two o'clock, is called a breakfast, and when it takes place in the afternoon or evening, it is called a reception."

The bride rises first from the table, the others immediately following.

The bride should be served first, then the older ladies—the mothers of bride and groom—then the bridesmaids. Afterwards, the men are served, precedence being given to the groom and older ones. As there will be more than one waitress, two or more will be served at the same time, and the entire serving will be quickly done.

Seat the bride and groom together at the center of one side of the table. The seating of the rest is immaterial. Often the bride's mother chooses to sit at one end of the table with the groom's father, her husband sitting at the opposite end with the groom's mother. The best man and maid of honor may sit next to the bridal couple, the rest being disposed as convenient.

Certainly, you may use place cards, if you wish.

If I were you, I would not seek for too much novelty at a wedding. Novelty always implies a bit of "showing off" at such a time, and might be regarded as vulgar. Simply aim to have the decorations pretty, and reserve the novelties for some such occasion as Hallows'en or St. Valentine's Day. Have a large, green, Christmas bell, with a red clapper, for the bridal party to stand under during the ceremony, use ropes and festoons of smilax and holly, tied with red-ribbon bows, and plenty of candles (red and white), if the reception is to be at night, and you cannot make a mistake. If the candles are set in dishes of sand, the edges of the dishes being concealed by greenery, they may be placed anywhere in the room without danger of setting fire to anything.

The ring is usually placed on a silver salver when carried by a child. At really fashionable weddings, however, the best man carries the ring in his pocket, handing it to the groom at the required point. This quite obviates the squalls and unnecessary delays which have been disagreeable features of so many weddings in which children have had to do with this part of the ceremony.

Toasts at weddings are not at all out of date, but are usually very few in number. They are, however, often omitted altogether.

SATIN STITCH, ETC.

Dear Junia,—I would be pleased if you would explain the satin stitch to me; also, what is the proper thread to embroider flannel and flannelette with?

Can someone tell me how to knit a child's sweater, age about five?

Thanking you in advance.
Parry Sound, Ont. BLUE BELL.

Satin stitch is the plain, smooth, "over-and-over" stitch, used in all thick work in embroidery.

Flannel and flannelette may be embroidered with embroidery silk, but D. M. C. "Coton Perle," may be used instead.

Getting Ready for the Christmas Dinner.

Most people like to have their Christmas cake, plum pudding and mincemeat, made some weeks before Christmas, so here are some recipes from which you may choose, in good time.

Royal Plum Pudding.—One cup seeded raisins, 1 cup washed currants, 1 cup each of chopped citron, orange and lemon peel,—all well floured. Into a mixing basin put 4 well-beaten eggs, 1 heaping cup sugar, 1 teaspoon each of ground cloves and cinnamon, and half a grated nutmeg. Next, stir in the floured fruits and peel, ½ cup chopped and blanched almonds or other nuts, 2 cups bread crumbs, and 1 cup chopped suet. Add enough flour in which a teaspoon baking powder has been mixed to make the fruit stick together in a rather stiff batter. Put into a well-buttered mould and set in a saucepan with boiling water to reach half-way up the mould. Cover well, and steam thus for five hours. Turn out on a dish and serve with a good sauce, to which lemon extract has been added for flavoring.

Christmas Cake.—One lb. butter, 1 lb. granulated sugar, 1 lb. Sultana raisins,



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1 lb. currants, ½ lb. mixed candied peel, 2 lbs. flour, ½ ounce baking powder, 8 eggs, milk. Sift flour and baking powder well, mix in the fruit and chopped peel. Now beat the butter and sugar to a cream, and add the eggs, one by one, beating well after each addition. When all are in, add the fruit and flour, and moisten with milk to the usual cake-batter consistency. Bake three to four hours in a well-papered and greased tin, in a very moderate oven. Several thicknesses of greased paper in the bottom of the pan will help to prevent scorching if the oven has a tendency to bake quickly at the bottom. This is an "English" recipe.

Scotch Fruit Cake.—Beat 1 cup butter and 2 cups sugar to a cream; add, gradually, ½ cup sour milk, and the beaten yolks of 9 eggs. Beat well, then stir in alternately, and a little at a time, the whipped whites of the eggs. Flavor with 1 teaspoon each of lemon and vanilla extract. Have ready, mixed and dredged well with flour, 1 lb. seeded raisins, ½ lb. washed and dried currants, and ½ lb. thinly-sliced citron or other peel. Put a thin layer of the plain batter into a greased baking-mould, sprinkle this over with fruit, cover with

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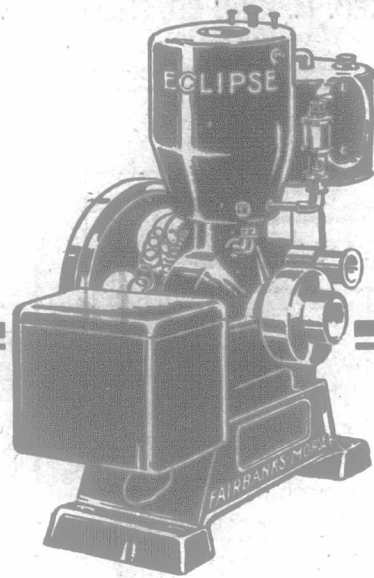
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to the farmer who suggests the greatest number of practical uses for it on his farm—or any other farm.

IT will pump water, saw wood, make electricity, grind feed, cut ensilage, shell corn, pull stumps, run a churn and separator and washing machine and operate a spray-pump.

What else will it do? The engine is offered as a prize for the most complete answer.

This contest is open to every farmer in Canada. You do not have to own an engine, or to buy anything from us, to enter it. There is no entry fee or other condition. All you have to do is to tell us what you could do with the engine if you had it on your farm.

We're writing a book—"Uses For a Farm Engine."

Its purpose is to show how our engines can be used to save labor and increase profits. We will do this by describing as many practicable uses as possible. We know already of many different uses for the engine, but we feel sure that you can tell us of others. So we're asking you to help us get information for the book.

We'll give this engine to the farmer who gives us the greatest number of practical suggestions.

Mr. C. B. Allardyce, Editor of "The Family Herald and Weekly Star," will act as judge and award the prize.

Now think what you would do with the engine if you had it on your farm. Think of every possible way in which you could use it to do work that now takes the time of expensive hired help. Think how it could make your wife's work easier. Then sit down and write us.

We have listed above, some of the uses we know about. You ought to be able to think of many others.

As soon as all replies to this advertisement are received, we'll go ahead with the book, and will send one of the first

copies to every farmer who enters the contest.

Your answer must be mailed not later than Dec. 15, when the contest closes. The engine will be shipped to the winner as soon as possible thereafter, so that he will have it in time to use all winter.

Do not bother about the form of your answer—we want ideas, and practical suggestions, not pretty writing.

When your letter is written, cut out the numbered seal in the corner of this advertisement and pin it to your answer.

Address—Farm Engine Booklet Editor

The
Canadian Fairbanks-Morse Co., Limited
444 ST. JAMES STREET, MONTREAL

Remember the Contest Closes December Fifteenth



batter, and continue alternating fruit and batter, finishing off with batter; then bake two hours in a steady oven. When cold, cover with white icing.

A Cheap Christmas Pudding.—Mix a cup of chopped suet with a teaspoon of salt and 3½ cups flour. Put together 1 cup molasses and 1 of milk; add a teaspoonful of soda and then the flour, a little at a time. Put in a cup of raisins mixed with part of the flour, and half-fill a covered pudding-mould. Steam for three hours. If wished, spices may be added to the batter, also 1 cup chopped figs mixed with part of the flour, but in this case use only 3½ cups flour in all. Turn this pudding out on a hot dish and surround it with hard sauce.

Hard Sauce.—Beat till smooth 1 cup butter and 1 cup powdered sugar, and flavor with vanilla. Put in spoonfuls around the pudding, and decorate with candied cherries and a few sprays of holly.

Cheap Christmas Cake.—Take ½ lb. fat salt pork chopped very fine, 1½ cups sugar, 1 cup New Orleans molasses, ½ pint boiling coffee, ½ lb. raisins, 1 level tablespoon cinnamon, 1 teaspoon ground cloves, 1 teaspoon ginger, 1 teaspoon soda, flour to make a fairly stiff batter. Add chopped nuts if you wish.

Mincemeat.—Chop fine 4 lbs. cooked beef. Add 1 quart molasses, 1 lb. sugar, 3 lbs. seedless raisins, juice and grated rind of 6 oranges and 2 lemons, 1 teaspoon each of mace, cinnamon, cloves and grated nutmeg, 3 lbs. currants, 1 lb. sliced citron, 2 lbs. finely-chopped suet, 4 lbs. chopped apple, 2 tablespoons salt. Moisten with boiled cider or any fruit juice left in sealers. Lastly, add 3 cups chopped nuts. When making the pie, add a little sweet cider or water. If you have no cider, you may use 1 pint clear, strong coffee, to each gallon of mincemeat.

Möck Mincemeat.—Two lbs. finely-chopped suet, 4 lbs. bread crumbs, 4 lbs. currants, 4 lbs. raisins, 5 lbs. brown sugar, 1½ lbs. peel, 6 lbs. apples weighed after chopping, 2 tablespoons cinnamon, 2 tablespoons cloves, 1 tablespoon mace, 1 tablespoon salt, 2 quarts boiled cider. Keep in a cool place.

Mincemeat Without Liquor.—Six tart apples, 3 lemons (rind and juice), 1 lb. stoned raisins, 1 lb. currants, 1 lb. chopped suet, 2 lbs. brown sugar, 1 ounce each sliced citron, orange, and lemon peel, 1 tablespoon mixed spices, 2 tablespoons any tart fruit juice. Keep in a cold place.

Mincemeat Without Meat.—One lb. currants, 1 lb. raisins (chopped), 1 lb. sugar, 2 lbs. apples, ½ lb. suet, ½ teaspoon mixed spices, 1 lb. candied peel (mixed), grated rind and juice of two lemons.

Green Tomato Mincemeat.—If you have still a few green tomatoes on the attic floor, try this: Half-peck tomatoes, chopped; 3 lbs. sour apples, chopped; 2 lbs. brown sugar, 1 lb. seeded raisins, ½ lb. citron, grated rind and juice of 1 orange, juice of 1 lemon, ½ cup boiled cider or vinegar, 1½ cups clear coffee, 1 teaspoon salt, 1 teaspoon each of cloves and cinnamon, a few gratings of nutmeg. Mix all and simmer slowly for 2 hours, then put in sealers. Let ripen a few weeks before using.

The Beaver Circle.

Doll's Dress Competition.

Dear Beavers.—At last the judging of the dolls' dresses sent in by our clever little girls has been completed. It was not at all easy to judge among so many, as proportion, good taste, good workmanship, all had to be taken into consideration, but it was decided that the very best and prettiest of all had been made by Laurretta Cragg, Drayton, Ont., and Mabel Sollitt, Uxbridge, Ont., to whom will be sent, accordingly, the first prizes.

The next best prizes will be sent to Hilda Ebert, R. R. D. No. 4, Nelles Corners, Ont.; Lena Smith, Sparta, Ont.; Elva Pearen, Acton, Ont.; Florence Blight, Brooklin, Ont.; May Hunsberger, Waterloo, Ont.; and Elsie Newby, Rockville, Ont.

All in the Honor Roll will, however, receive a prize of some sort. The Honor Roll is as follows: **Evah Leigh, Elsie**

Brook, Sarah Bruce, Ina Oswald, Eva Deshaw, Gertrude Lee, Florence Branton, and Winifred Baker.

And now, perhaps you would like to know what the really "prize" dresses were like, so here are descriptions, as briefly given as possible.

Laurretta Cragg's was a beautiful little "Mother Hubbard" baby doll dress, of palest blue mull, with white lace yoke, and blue ribbon bows.

Mabel Sollitt's was also pale blue, but of lawn, a little "French" dress, with white lace and blue ribbons for trimming.

Hilda Ebert sent a pink, rose-dotted muslin, trimmed with pink "hebe" ribbon, and a white lace collar; Lena Smith, a white muslin with pink flowers, trimmed with white lace,—a very pretty little French dress; Elva Pearen, who is only ten years old, sent a white muslin dress, flowered with blue, blue ribbon, and white trimming. Florence Blight's was scarcely of such good taste in color, being made of royal blue sateen, trimmed with white braid and lace, but her stitching was beautifully done, and the braid run very evenly. May Hunsberger sent a very neat little blue chambray dress, while Elsie Newby, who is also only ten years of age, sent a very creditable little red cashmere dress, trimmed with white lace.

Now, for the Honor Roll:

Evah Leigh—White dress, with embroidery and pink ribbons.

Elsie Brook—Pink-flowered muslin, with ecru lace.

Sarah Bruce—White lawn and lace.

Ina Oswald—White lawn, with lace and shadow embroidery.

Eva Deshaw—Pink lawn, ecru lace.

Gertrude Lee—Blue cloth, with silk puffing.

Florence Branton—Blue chambray, French dress, with checked belt.

Winifred Baker—White net, trimmed with red, French dress.

WHAT SHALL BE DONE WITH THE DRESSES?

Now, what shall be done with the dresses? I have thought of three solutions, and I want you every one to send me a post card telling whether you approve of any of the suggestions, and which you prefer. (1) To send the dresses to the poor little sick children in a hospital at Christmas, as a Christmas present from the Beaver girls. (2) To send them at Christmas to the little ones in an Orphans' Home. (3) Or to the little ones in a Children's Shelter.

YOU WANT A COPY



and every woman who is interested in fine Furs and latest Fur Fashions.

A Post Card will bring our 1912-13 Catalogue of McKAY FURS. It gives valuable information their description in plain English, Photographs from actual furs. You want it to make a satisfactory selection.

McKay FURS are made in Kingston, known as Fort Frontenac in the early days of Fur trading. It was here the Red Man held his solemn Council of War, and disposed of his winter harvest of Furs.

Our House is known World Wide.

We use only whole selected skins, purchased direct from the Trappers.

For more than half a century, we have been trading and dealing in Furs, and our positive guarantee of satisfaction in fit, style, and quality, goes with every piece of Fur bearing the "McKAY" Trade Mark. Now is the time to make your selection before the rush begins.

WRITE TO-DAY.

Illustration shows McKAY styles in Number 192. Stole, with head and tails, and large muff No. 221x, same trimmings, lined with Skinner's best quality Furrier's Satin.

PRICE STOLE.....\$21.50
PRICE MUF.....\$21.50

Genuine Wolf is a long, soft, silky Fur of beautiful appearance and splendid wearing qualities.

You don't need to send one cent. Make your selection from our Catalogue. We will send them to your Express Office prepaid for free examination.

JOHN McKAY,

150 Brock St., Kingston, Ontario

Established 1859

Please Mention The Farmer's Advocate



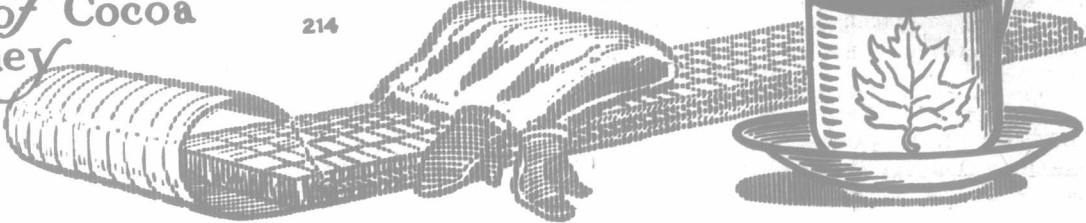
COWAN'S PERFECTION COCOA

WHEN the boys and girls come in tired and hungry from the slides a cup of Cowan's is as good as a meal. Better. It is easy to digest. It is so appetizing, so refreshing—not only satisfies the hunger, but lets you sleep like a top.

Your Grocer Has It.

The COWAN Co. Limited TORONTO

"They'll Want A Nice Hot Cup of Cocoa When They Return."



The Most Successful Stock Raisers Use and Endorse

HARAB ANIMAL FOODS

FOR HOGS—HARAB DIGESTIVE TANKAGE
The Protein Food

This is a food that will show you what can be done in the way of raising hogs profitably. Contains 60 per cent. protein, and is the strongest as well as the most available hog food known.

FOR CATTLE—HARAB FATTEIN MEAL

Specially adapted for feeding stock: a well-balanced food that will give you rapid growth, and at the same time give your stock a finished appearance.

FOR CALVES—HARAB (BLATCHFORD'S) CALF MEAL
Made in England since 1890

A perfect milk substitute at half the cost. The price of veal is high, but not high enough to warrant the feeding of milk to your calves. Sell your milk, and replace it in your calves' rations with our Calf Meal.

FOR ALL YOUNG STOCK—HARAB BLOOD FLOUR

The best, strongest and most available protein food on the market. Good for all young stock, keeps them growing.

FOR HORSES and CATTLE—HARAB SUGAR FOOD

An unequalled tonic for all live stock. Keeps them in the best of condition and always ready for work.

FOR POULTRY—HARAB POULTRY FOOD

Every poultry-raiser has heard of our Poultry Foods. They are undoubtedly the best on the market. Special foods for laying hens, crate feedings, young stock, and everything in the line of grains, seeds, shell, grit, etc.

If you are after best results, and we are sure you are, you cannot afford to overlook this advertisement and to write us for full particulars of

HARAB ANIMAL FOODS

Made in Canada by

THE HARRIS ABATTOIR COMPANY, LIMITED
TORONTO, ONTARIO
HANDLED BY MOST GOOD DEALERS

Remember the *St. Lawrence* Sugar

Try it—test it—see for yourself—that "St. Lawrence Granulated" is as choice a sugar as money can buy.

Get a 100 pound bag—or even a 20 pound bag—and compare "St. Lawrence" with any other high-grade granulated sugar.

Note the pure white color of "St. Lawrence"—its uniform grain—its diamond-like sparkle—its matchless sweetness. These are the signs of quality.

And Prof. Hersey's analysis is the proof of purity—"99 99/100 to 100% of pure cane sugar with no impurities whatever". Insist on having "ST LAWRENCE GRANULATED" at your grocer's.

ST. LAWRENCE SUGAR REFINERIES LIMITED, MONTREAL. 66A

which is almost, but not quite, the same as an Orphans' Home.

In any case, if you decide on one of these plans, your name and address will be pinned to the dress that you made, so that the poor little one, whose Christmas you will be helping to make happy, will know from whom the present came. . . Now, girls, won't you write at once and tell me what you think of all this?

PUCK.

A LETTER FROM MABEL SOLLITT.

Dear Puck and Beavers,—When I saw your offer of a prize for making a doll's

Butter! Butter!! Butter!!!

Why make butter during the winter months when you can ship your cream weekly, and get the highest market price? If within one hundred miles of London we can guarantee you, for your butter-fat for November, 30c. per pound f. o. b. your nearest express office, and supply cans for shipment (6, 8 or 10-gallon to suit your requirements). We remit immediately each shipment is tested. A postcard will bring a can (specify size suitable), and enable you to give this system a fair trial.

SILVERWOODS, LIMITED,
Successors to Flavell-Silverwood, Limited
LONDON, ONTARIO.

dress, I could not resist the temptation to try. I am a great lover of dolls. I love almost anything. Oh, Puck, if you could only see our little pup! We have one of the dearest, fattest, cutest, little pups you ever saw. It is brown, with a white streak around its neck, and its feet are all white. It is about two months old. But, there, Puck, I am getting off my composition. I decided on getting blue lawn for my dress, for I thought it would not show the dirt like a white silk or other light goods, and that it would be easily washed and ironed, for you must not forget that dollies' dresses get dirty just as quickly as little girls' dresses do sometimes. Now, I come to the most important part of my composition.

You said we had to make the dresses all ourselves, and, now, Puck, I am glad I did; for I can say without blushing, or hanging my head, "I made this dress all myself, without anyone's help." Mamma took me to town to purchase the lace; then I went to my sister's and begged some stuff from her, which she let me pick out all myself from a big bundle of patches, the kind I liked the best. I then set to work to make it. Once or twice I thought I would give up and keep the dress all myself, but mamma said if I never tried I would never succeed, and that if I lost both the dress and the prize, it would do me good to try. So, now, Puck, I will close, wishing every success to you and the Beavers.

MABEL SOLLITT
(Class Jr. IV., age 11.)

Your dress well deserved a prize, Mabel.—I wish you could bring your pup to see me some day. Like you, I love dogs, and find them almost as good companions, sometimes, as real "humans."

LETTER FROM LENA SMITH.

Dear Puck and Beavers,—I am sending a doll's dress which I have had made about a week. I did all the sewing, cutting, and finding the style myself. I made it to fit my sister's doll, which is about a foot and one-half high. I could not try for the garden competition, as the chickens got into mine and dug almost all of my things up. Father has taken "The Farmer's Advocate" as long as I can remember, and we all enjoy reading its interesting pages. This is all for this time.

LENA SMITH (age 14).

I am so sorry that the chickens spoiled your garden, Lena. It was very discouraging, wasn't it? Perhaps you will be able to have a corner with a fence around it another year.

Junior Beavers' Letter Box.

Dear Puck and Beavers,—This is my first attempt to write to you. My father has taken "The Farmer's Advocate" for a number of years, and I like reading the Beaver Circle letters. I live on a farm of one hundred acres. My father keeps sheep, pigs, cows, horses, and poultry. We have two little colts named Dolly and Polly. I go to school every day, and like it very much. We have a lady teacher. I am in the Junior Third Class. I think this letter is long enough for this time.

LOTTIE MILNE (age 10, Jr. III.).
Eden Mills, Ont.

Dear Puck and Beavers,—I have wanted to write to you before, but papa thought I was too small. I have a kitty; its eyes have just come open. One day I brushed its hair the wrong way, and its mamma would come and lick it down every time I did it. Good-bye, wishing the Beavers every success.

Lambeth, Ont. AUDREY TUNKS.

Dear Puck and Beavers,—As this is my first letter to the Beaver Circle, I thought I would tell you about my home and my pets. I live on a farm, and have about half a mile to go to school. Our school has two teachers. My home is near a river and the village of Thomasburg. I have a nice dog; we call him Chappy. I have two cats and three kittens with which I have lots of fun. I am in the First Second Book,

having passed out of the First Book in eleven months of school. I guess I will close, as my letter is getting quite long.

GRACE W. PRINDLE (age 7).
Thomasburg, Ont.

Dear Puck and Beavers,—I have enjoyed reading the letters in "The Farmer's Advocate." I have one mile and a half to walk to school. I like to go to school. My teacher's name is Miss Pulling. I have two sisters younger than myself; one of them goes to school with me; her name is Jean. My baby sister likes me to swing her, and she likes to go night and morning to feed the little kittens and chickens. I call my kitten Jessie, and the baby calls her's Mary, and my sister Jean calls her's Marion. We have a playhouse. This is my first letter; as it is getting long, I will say good-bye.

SADIE McROBERT
(Age 7, Class II.).
Longwood, Ont.

Dear Puck and Beavers,—This is the first time I have written to your Circle. My father has been taking "The Farmer's Advocate" off and on for thirty years, and likes it fine.

I passed my Exam. this year, and am in the Junior Third, and I have passed every Exam. I have tried yet.

For pets, I have two cats and a dog. I live about half a mile from school; this year they are fixing the school, and have put a furnace in. I have three sisters and one brother. Two of my sisters are going to school, and my brother. Well, I think I will close now, as my letter is getting long. Wishing the Beavers every success, I remain,

HESTER SMITH (age 9, Jr. III.).
Renforth, Ont.

Dear Puck and Beavers,—I thought I would try and write a letter to "The Farmer's Advocate." I like reading the letters. My papa has taken "The Farmer's Advocate" for a number of years. We have the rural telephone, and I like talking on it. I started to school this summer. I have to walk 2½ miles. My teacher's name is Miss Aird. I like her fine. I am in the First Book. For pets, I have a cat (her name is Wildly), and a collie dog (his name is Billy), and lots of chickens, and I feed them night and morning. I am afraid you will think my letter too long, so I guess I will say good-bye.

NORA E. SHANKS (age 7, Class I.).
Moose Creek, Ont.

Dear Puck and Beavers,—Last time I wrote I was at my uncle's, but I have come home and started to school. There are ten rooms in our school, and four more rooms are being built. There are from fifty-six to ninety in every room. My teacher is lovely; her name is Miss Edgar. Her sister teaches me in music. I take my music-lesson every Friday afternoon at four o'clock. I will close, as I must go to school now. Hoping my letter will escape the w-p. basket, I wish the Circle every success.

LILLIAN HOLTZHAUER
(Age 10, Jr. III. Class).
Preston, Ont.

Dear Puck and Beavers,—As I just finished reading your charming little Circle, I was tempted to write once more, as I had written once before and had seen it in print. I thought I would tell you about a strange cat which came around here the other day. She came to the kitchen door and I fed her on bread and milk. A couple of days later she brought two little half-grown kittens also. At first when we went near the little ones, they would spit and scratch towards us, but now they are quite tame. I intend to keep and feed them, as I have pity on dumb animals. I will close, wishing the Beaver Circle success.

RIDDLE.

As I went under an apple tree, with apples on, I took no apples off and left no apples on. Ans.—There were only two apples on, so I took one apple, and left one apple on.

LEONARD BAER (age 10, Jr. III.).
Guelph, Ont.

NOVEMBER

perfect lock-stitch, yet it is so compact that it can be carried in the pocket like a key. The 2½" made for \$2.25, order to it we all char- cluding of best a large process three e Send up Mfg. C St., west

Advert ing, such Wanted, TERM Each init words, must alw ment ins

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TI Lond

"D "Yes theat your

\$2.00 Worth for \$1.00

This illustration shows the inside working of the 2 in 1 Automatic Awl. This is something absolutely new, and no farmer can afford to be without it. The 2 in 1 is a combination of the two best selling dollar tools in the world, and will quickly sew harness, boots, sole boots, etc., nothing is too thick for it. It will sew with either waxed thread or steel wire, making a perfect lock-stitch, yet it is so compact that it can be carried in the pocket like a knife. The 2 in 1 was made to sell for \$2, but in order to introduce it we will send it, all charges paid, including a large reel of best waxed thread, a large skein of special process steel wire, and three extra needles for \$1. Send to-day as the price goes up soon. Fisher-Ford Mfg. Co., Dept. 40, 31 King St., west, Toronto, Ont. Agents wanted.



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.

ALL kinds of Farms—Fruit Farms a specialty. W. B. Calder, Grimsby.

AGENTS wanted—Good reliable agents wanted in every locality to sell and erect the best lightning rods made. Only responsible parties need apply, as we have an interesting, good paying proposition to the right parties. Apply Box B, Farmer's Advocate, Toronto.

BRITISH Columbia Ranches, Vancouver Island. Ideal climate, no cold weather; no hail, frost or bad storms; abundant crops assured; richest of soil, unsurpassed for growing grain, fruit and vegetables. The poultryman's paradise. Best market in the world. Improved and partly improved ranches, 5 acres and upwards. Easy terms of purchase. Come to the Pacific where life is worth living. Abundant sport, finest of hunting, fishing and boating. For further information and full particulars write Dept. F, Stuart, Campbell, Craddock & Co., 521 Fort Street, Victoria, or 425 Pender Street West, Vancouver, B.C.

CREAM WANTED—We guarantee highest prices, correct weights, accurate tests, prompt returns. Write for free can and try a few shipments. Toronto Creamery Co., Limited, Toronto.

ELKO FRUIT LANDS. In Southern British Columbia on easy terms. Acres in Columbia Kootenay Valley, in tracts from five to one hundred acres, offered at \$50 to \$80 per acre. Terms \$5 to \$8 per acre down, and \$2.50 to \$4 per month. Land suitable for growing apples, pears, plums, cherries, apricots, strawberries, raspberries, vegetables, cereals. Land covered with light timber useful for the farmer. Poultry and live stock raising can be pursued. Town of five hundred people three miles from property, with three railways, stores, schools, hotels, telegraph, telephone, and modern conveniences. The climate is similar to Southern California and blizzards and cyclones are unknown. Every information cheerfully supplied upon request. International Securities Co. Ltd., Royal Bank Bldg., 12 King St. East, Toronto, Ontario.

EXPERIENCED working manager wants job. Mixed farming; also expert hens and incubators. Good references. Box L61, Melbourne.

FARM FOR SALE—150 acres good clay loam, good orchard, spring creek, first class buildings, silo, convenient to station, churches and schools. For further particulars apply, Box 64 Princeton.

FARM HANDS—Single. Ploughman and care of stock. State wages. Robt. Scott, Prospect, Ont.

FARM MANAGER open for engagement; married, experienced and capable in all branches of agriculture, live stock and all details connected with a modern up-to-date farm or estate; results guaranteed; references. Box 65, Farmer's Advocate, London, Ont.

SITUATION WANTED—By married man. First class milker on large dairy farm. Age 31; good references. G. Martin, Kinlough P. O., Ontario.

VANCOUVER ISLAND, BRITISH COLUMBIA, offers sunshine, mild climate; good profits for men with small capital in fruit-growing, poultry, mixed farming, timber, manufacturing, fisheries, new towns. Good chances for the boys. Investments safe at 8 per cent. For reliable information, free booklets, write Vancouver Island Development League, Room A, 23 Broughton St., Victoria, British Columbia.

WANTED—Cash paid for Military Land Grants in Northern Ontario. Please state price and location. Box 88, Brantford.

S.-C. W. Leghorn Cockerels

We still have for sale about two hundred beautiful cockerels; all imported from the best bred-to-day poultry farms in United States. Write for prices before purchasing elsewhere. Satisfaction guaranteed.

THE MAPLE LEAF POULTRY FARM
London, Ontario

A REAL CRISIS.

"Do you know what a crisis is?"
"Yes; a telephone call to go to the theater and nobody home to button up your dress."

Dear Beavers,—I like to read the stories in "The Farmer's Advocate." My father has taken it for a long time, and we like it fine. I like to go to school and learn, and our teacher is good to us. I am going to try for the Second Book at Christmas. I have five brothers and one sister. One of my brothers goes to school with me; he is in the Fourth Class, and I am in the Part Second Class. Well, my letter is getting long. Good-bye.

SADIE MORSE (age 8, Part II.).

News of the Week.

CANADIAN.

Four young women from Uruguay are in Canada studying the school system.

One hundred and seventy new post offices have been opened in Canada during the last three months.

Only about 250 men responded to the call to the C. P. R. freight and baggage employees to go on strike last week.

BRITISH AND FOREIGN.

Rev. John Russell, founder of the Prohibition party, died at Detroit on November 4th.

The Woman's-suffrage movement carried four States in the Presidential election, and the suffragists have requested President-elect Wilson for recognition.

Nazim Pasha's army was completely crushed in the great battle fought during November 5th and 6th, his losses totalling 40,000 men. At time of writing, the surrender of both Constantinople and Adrianople is imminent, Salonika has been taken by the Greeks, with 27,000 prisoners, and the Turks are making a frantic endeavor to stir up a Holy War involving all Moslems. The horrors of the war have been increased by an outbreak of typhus, and a disease resembling cholera, in Constantinople and in Adrianople, and by the massacre of non-Moslems in various places where they have been exposed to the fury of the Turks. Such a massacre took place in Salonika immediately before its surrender.

A new college for workmen, to be known as the Central Labor College, will be opened in Oxford in January.

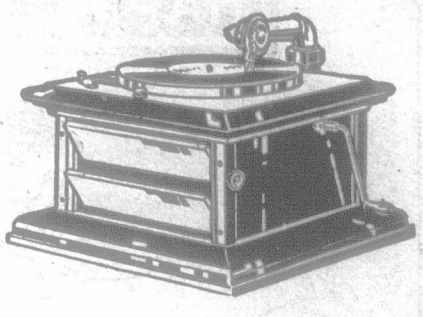
Fresh loan negotiations between the Chinese Government and the group of bankers representing Great Britain, the United States, Germany, France, Russia, and Japan, have been opened at Peking. In the meantime, an internal silver loan of \$100,000,000 has been arranged at 8 per-cent. interest.

November Love Song.

When first you told your love for me,
How well do I remember!
It was a melancholy day,
It was in sad November.
Amid the leafless trees you vowed
To be my brave defender;
Only a wand'ring chickadee
Saw lovers kiss each other.
He sang his little song of joy,
The sweetest note of winter,
And with his song your words of love
To me will mingle ever—
"Chick-a-dee, chick-a-dee,
I love but thee;
Chick-a-dee-dee-dee,
You're the world to me."

Let others sing the love of June.
Give me the love that ever
Makes summer bloom in winter's heart,
And May of bleak November.
The years have come, the years have
gone,
But still your love has never
Made aught but sunshine in my heart
Or in our lives together.
And always when the chickadee
Sings his sweet note of winter
I hear your words of love and truth
That have been faithful ever.—
"Chick-a-dee, chick-a-dee,
I love but thee;
Chick-a-dee-dee-dee,
You're the world to me."
—The Independent.

The Two Most Popular Instruments



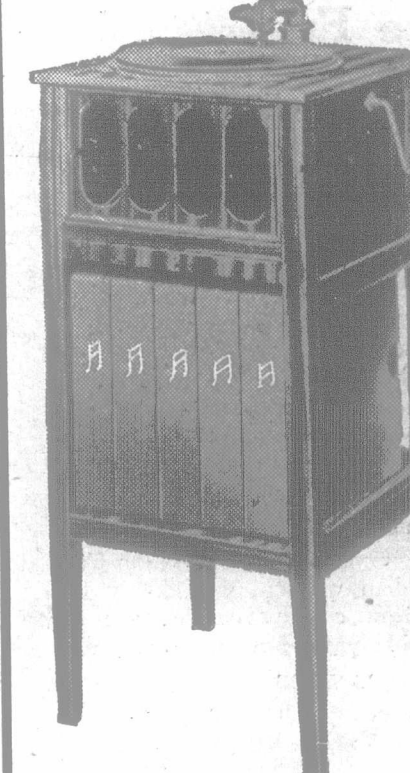
There are 25 Columbia Models made to-day—all of which represent the very best value at the price at which they sell. But we illustrate two very special machines, which we recommend most strongly.

The "Eclipse"

The greatest value ever offered. Double-spring motor and all exclusive Columbia features, \$26.00 in oak, \$32.50 in mahogany.

We will arrange for your nearest dealer to give you a FREE DEMONSTRATION FOR A WEEK IN YOUR OWN HOME of either of these machines. (Sign coupon below).

Columbia



The "Regal"

We illustrate the "Regal"—a superb model at \$52.00—it comes in mahogany, golden and fumed oak, mission styles—a magnificent piece of furniture, as well as a splendid musical instrument.

DEALERS :

We advise ordering at once and ordering heavily. The demand for these types is very excessive, and we are making extraordinary efforts to keep up the supply, but it will be a case of first come first served.

The Music Supply Co.
88 Wellington St., W.,
TORONTO

COUPON

I am interested in the purchase of a talking machine. Please arrange for your nearest dealer in my vicinity to let me have a week's Free Demonstration of the..... machine in my own home.

Name

Address

POULTRY AND EGGS

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

CHOICE White Wyandotte cockerels, from good laying strain; two dollars each. Randolph Webber, Woodstock, Ont., R.R. No. 2.

EXTRA Choice S.-C. Brown Leghorn cockerels (Becker strain), \$2 each. David A. Ashworth, Maple Grove, Ont.

FOR SALE—Prizewinning Mammoth Bronze turkeys and African geese. Write: Jas. Black, Donville, Ont.

HOUDANS for sale—5 extra fine trios properly mated at \$7 a trio; satisfaction or your money back. One fine yearling cock bird, a dandy at \$4. Write me: W. V. Charlton, W. London, Ont.

MONEY in Poultry—Our bred-to-day strains are putting poultry keeping on a paying basis for hundreds of farmers. Write for illustrated catalogue and Summer Sales List. They are free. L. R. Guild, box 16, Rockwood, Ont.

MENTION "FARMER'S ADVOCATE."

POULTRY AND EGGS

In addition to operating the largest creamery business in Western Ontario, we are among the very largest egg and poultry handlers. We can guarantee thirty cents or better, your station, for strictly new-laid eggs, and are prepared to pay the highest price for poultry, especially crate-fed chickens. Write NOW for full particulars.

SILVERWOODS, LIMITED,
Successors to Flavell-Silverwood, Limited
LONDON, ONTARIO.

"Do you think that the automobile will displace the horse?" asked the conversational young woman. "It will," answered the nervous young man as he gazed down the road, "if it ever hits him."

Small Boy—"Please, I want the doctor to come and see mother."

Servant—"Doctor's out. Where do you come from?"

Small Boy—"What! Don't you know me? Why, we deal with you. We had a baby from here only last week?"

HAPPY THOUGHT



How You Can Roast Well and Save Fuel

A range may be a good *baker*, and still not be a good *roaster*.

Roasting is one of the most expensive processes of cooking—more fuel is used in proportion to the result than in almost any other cooking operation. So fuel economy is worth careful watching.

"Happy Thought" Ranges are constructed to give concentrated heat efficiency in the oven.

You know how necessary this is to proper roasting.

But the "Happy Thought" has this further advantage—oven heat is controlled entirely by the size and strength of your fire. So that a small, lazy fire gives a slow cooking heat, and a hot blazing fire gives a quick intense heat.

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Are sold in your locality. Ask your hardwareman.
THE WILLIAM BUCK STOVE CO., LIMITED, BRANTFORD, ONT.

Get the Winter Profits

Don't be content to merely keep your stock through the winter; make it productive and profitable. Confinement and cold are forgotten where health and vigor abound.

Pratt's Animal Regulator

keeps all livestock in the pink of condition. It improves the appetite, assists digestion, maintains perfect health.

25c, 50c, \$1; 25-lb. Pail, \$3.50

Worms impair the appetite, bring on many troubles. Just use

Pratt's Worm Powder

50c package
"Your money back if it fails."

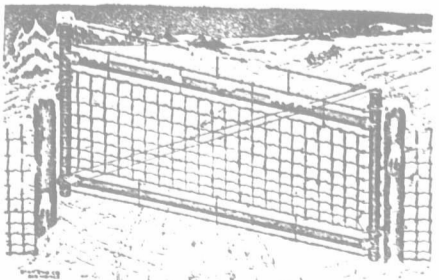
Our products are sold by dealers everywhere, or
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WINTER
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NO other farm gate made is so good, winter and summer, as the "Clay" Gate, which can be raised by simple adjustment to lift over snow in winter, or to let small stock through in summer. (See illustration.)

CLAY STEEL FARM GATES

are the strongest of all farm gates—can't bend, break, burn, blow down or rot. Will last a lifetime. Cheapest in the end, and most satisfactory and serviceable always. Twenty thousand sold in 1911.



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BEST RESULTS ARE OBTAINED FROM ADS. IN "ADVOCATE."

The Purest Joy.

If I can live
To make some pale face brighter, and to give
A second lustre to some tear-dimmed eye,
Or e'en impart

One throb of comfort to an aching heart,
Or cheer some wayworn soul in passing by;

If I can lend
A strong hand to the fallen, or defend
The right against a single envious strain,

My life, though bare
Perhaps of much that seemeth dear and fair

To us on earth, will not have been in vain.

The purest joy,
Most near to heaven, far from earth's alloy,

Is bidding clouds give way to sun and shine,

And 'twill be well

If on that day of days the angels tell
Of me: "She did her best for one of 'thine."

—Helen Hunt Jackson.

REBECCA OF SUNNYBROOK FARM.

By Kate Douglas Wiggin.

[Serial rights secured from Houghton Mifflin Publishing Company, New York.]

CHAPTER V.
WISDOM'S WAYS.

The day of Rebecca's arrival had been Friday, and on the Monday following she began her education at the school, which was in Riverboro Centre, about a mile distant. Miss Sawyer borrowed a neighbor's horse and wagon and drove her to the schoolhouse, interviewing the teacher, Miss Dearborn, arranging for books, and generally starting the child on the path that was to lead to boundless knowledge. Miss Dearborn, it may be said in passing, had no special preparation in the art of teaching. It came to her naturally, so her family said, and perhaps for this reason she, like Tom Tulliver's clergyman tutor "set about it with that uniformity of method and independence of circumstances which distinguish the actions of animals understood to be under the immediate teaching of Nature." You remember the beaver which a naturalist tells us "busied himself as earnestly in constructing a dam in a room up three pairs of stairs in London as if he had been laying his foundation in a lake in Upper Canada. It was his function to build, the absence of water or of possible progeny was an accident for which he was not accountable." In the same manner did Miss Dearborn lay what she fondly imagined to be foundations in the infant mind.

Rebecca walked to school after the first morning. She loved this part of the day's programme. When the dew was not too heavy and the weather was fair there was a short cut through the woods. She turned off the main road, crept through Uncle Josh Woodman's bars, waved away Mrs. Carter's cows, trod the short grass pasture, with its well-worn path running through gardens of buttercups and white weed, and groves of ivory leaves and sweet fern. She descended a little hill, jumped from stone to stone across a woodland brook, starting the drowsy frogs, who were always winking and blinking in the morning sun. Then came the "woody bit," with her feet pressing the slippery carpet of brown pine needles; the "woody bit" so full of dewy morning surprises—fungous growths of brilliant orange and crimson springing up around the stumps of dead trees, beautiful things born in a single night; and now and then the miracle of a little clump of waxen Indian pipes,

seen just quickly enough to be saved from her careless tread. Then she climbed a stile, went through a grassy meadow, slid under another pair of bars, and came out into the road again, having gained nearly half a mile.

How delicious it all was! Rebecca clasped her Quackenbos's Grammar and Greenleaf's Arithmetic with a joyful sense of knowing her lessons. Her dinner pail swung from her right hand, and she had a blissful consciousness of the two soda biscuits spread with butter and syrup, the baked cup-custard, the doughnut, and the square hard gingerbread. Sometimes she said whatever "pieces" she was going to speak on the next Friday afternoon.

"A soldier of the Legion lay dying in Algiers,

There was lack of woman's nursing, there was dearth of woman's tears."

How she loved the swing and sentiment of it! How her young voice quivered whenever she came to the refrain:—

"But we'll meet no more at Bingen, dear Bingen on the Rhine."

It always sounded beautiful in her ears, as she sent her tearful little treble into the clear morning air. Another early favorite (for we must remember that Rebecca's only knowledge of the great world of poetry consisted of the selections in vogue in school readers) was:—

"Woodman, spare that tree!

Touch not a single bough!

In youth it sheltered me,

And I'll protect it now."

When Emma Jane Perkins walked through the "short cut" with her, the two children used to render this with appropriate dramatic action. Emma Jane always chose to be the woodman because she had nothing to do but raise on high an imaginary axe. On the one occasion when she essayed the part of the tree's romantic protector, she represented herself as feeling "so awful foolish" that she refused to undertake it again, much to the secret delight of Rebecca, who found the woodman's role much too tame for vaulting ambition. She reveled in the impassioned appeal of the poet, and implored the ruthless woodman to be as brutal as possible with the axe, so that she might properly put greater spirit into her lines. One morning, feeling more frisky than usual, she fell upon her knees and wept in the woodman's petticoat. Curiously enough, her sense of proportion rejected this as soon as it was done.

"That wasn't right, it was silly, Emma Jane; but I'll tell you where it might come in—Give me Three Grains of Corn. You be the mother, and I'll be the famishing Irish child. For pity's sake put the axe down; you are not the woodman any longer!"

"What'll I do with my hands, then?" asked Emma Jane.

"Whatever you like," Rebecca answered wearily; "you're just a mother—that's all. What does your mother do with her hands? Now here goes!"

"Give me three grains of corn, mother.

Only three grains of corn,

'T will keep the little life I have

Till the coming of the morn."

This sort of thing made Emma Jane nervous and fidgety, but she was Rebecca's slave and hugged her chains, no matter how uncomfortable they made her.

At the last pair of bars the two girls were sometimes met by a detachment of the Simpson children, who lived in a black house with a red door and a red barn behind, on the Blueberry Plains road. Rebecca felt an interest in the Simpsons from the first, because there were so many of them and they were so patched and darned, just like her own brood at the home farm.

The little schoolhouse with its flagpole on top and its two doors in front, one for boys and the other for girls, stood on the crest of a hill, with rolling fields and meadows on one side, a stretch of pine woods on the other, and the river glinting and sparkling in the distance. It boasted no attractions within. All was as bare and ugly and uncomfortable as it well could be, for the villages along the river expended so much money in repairing and rebuilding bridges that they were obliged to be very economical in school privileges. The teacher's desk



Note the Color of *your* flour—
 And the Bread it makes for you.
 Delicately *creamy* is FIVE ROSES flour
 Because it is *not bleached*, don't you
 see.
 Clear—Immaculate—Desirable.
 A *pure* Manitoba wheat flour—FIVE
 ROSES.
 And the healthy sun-ripened spring wheat
 berries are *naturally* of a golden glow.
 And the *meaty heart* of the polished kernels
 is *creamy*.
 Milled from *this* cream, FIVE ROSES is delicately
 "creamy."
 The *only natural* flour from Manitoba's prime wheat.
 Which gets whiter and whiter as you *knead* it.
 And *your* bread is most appetizing, *unusually* attractive
 in appearance.
 Looks good.
 And *is* good.
 Bake this purest *unbleached* flour.

Five Roses Flour

Not Bleached



Not Blended

LAKE OF THE WOODS MILLING COMPANY, LIMITED, MONTREAL

and chair stood on a platform in one corner; there was an uncouth stove, never blackened oftener than once a year, a map of the United States, two blackboards, a ten-quart tin pail of water and long-handled dipper on a corner shelf, and wooden desks and benches for the scholars, who only numbered twenty in Rebecca's time. The seats were higher in the back of the room, and the more advanced and longer-legged pupils sat there, the position being greatly to be envied, as they were at once nearer to the windows and farther from the teacher.

There were classes of a sort, although nobody, broadly speaking, studied the same book with anybody else, or had arrived at the same degree of proficiency in any one branch of learning. Rebecca in particular was so difficult to classify that Miss Dearborn at the end of a fortnight gave up the attempt altogether. She read with Dick Carter and Living Perkins, who were fitting for the academy; recited arithmetic with lispng little Thuthan Thimpton; geography with Emma Perkins, and grammar after school hours to Miss Dearborn alone. Full to the brim as she was of clever thoughts and quaint fancies, she made at first but a poor hand at composition. The labor of writing and spelling, with the added difficulties of punctuation and capitals, interfered sadly with the free expression of ideas. She took history with Alice Robinson's class, which was attacking the subject of the Revolution, while Rebecca was hidden to begin with the discovery of America. In a week she had mastered the course of events up to the Revolution, and in ten days had arrived at Yorktown, where the class had apparently established summer quarters. Then finding the extra effort would only result in her reciting with the oldest Simpson boy, she deliberately held herself back, for wisdom's ways were not those of pleasantness nor

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- ☐ Its tonal qualities are remarkably pleasing, harmonizing splendidly with the mandolin, violin and piano. It is easy to play, too, with our free course of instruction and a little practice you will astonish your friends.
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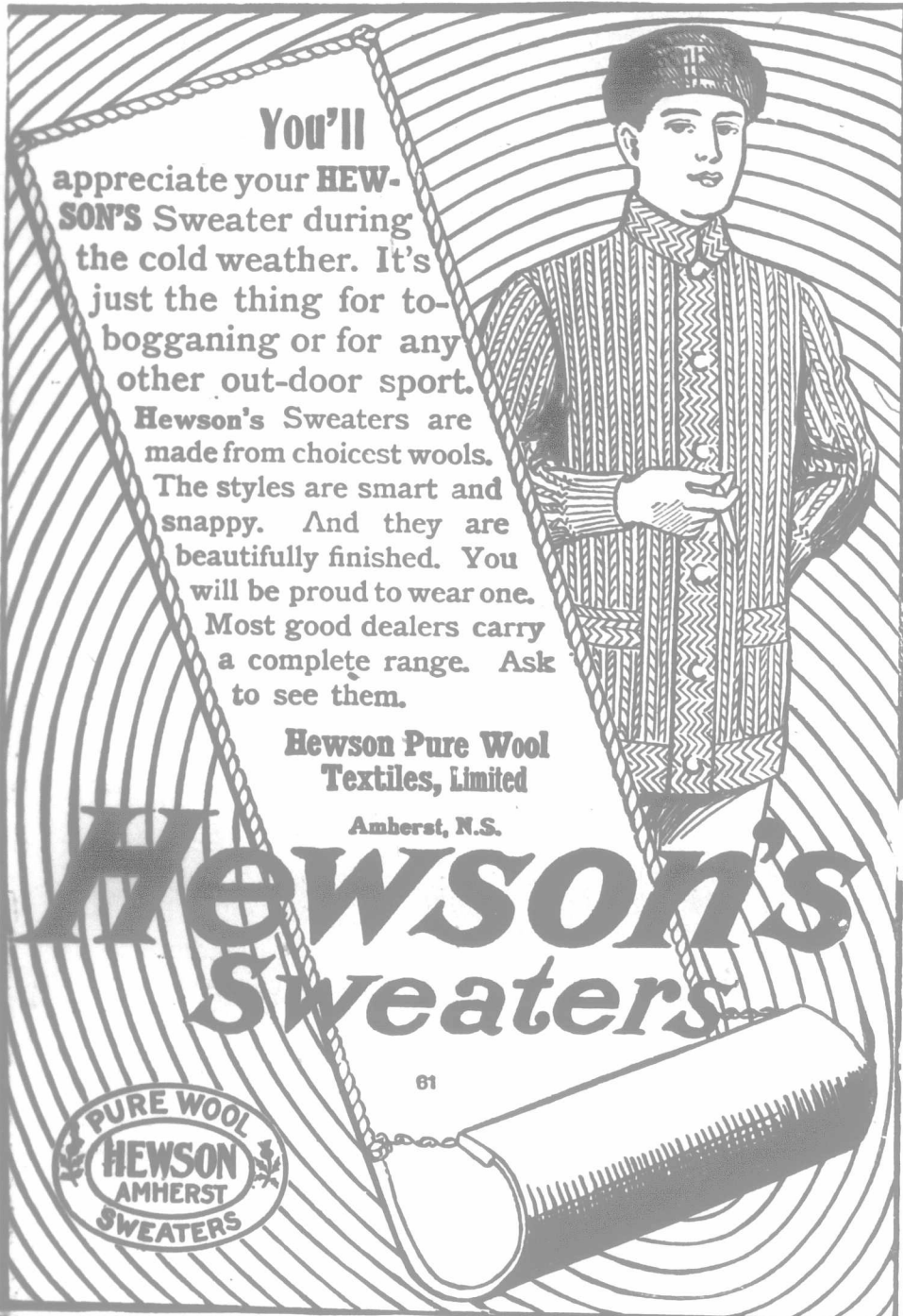
her paths those of peace, if one were compelled to tread them in the company of Seesaw Simpson. Samuel Simpson was generally called Seesaw, because of his difficulty in making up his mind. Whether it were a question of fact, or spelling, or of date, of going swimming or fishing, of choosing a book in the Sunday-school library or a stick of candy at the village store, he had no sooner determined on one plan of action than his wish fondly reverted to the opposite one. Seesaw was pale, flaxen haired, blue eyed, round shouldered, and given to stammering when nervous. Perhaps because of his very weakness Rebecca's decision of character had a fascination for him, and although she snubbed him to the verge of madness, he could never keep his eyes away from her. The force with which she tied her shoe when the lacing came undone, the flirt over shoulder she gave her black braid when she was excited or warm, her manner of studying,—book on desk, arms folded, eyes fixed on the opposite wall,—all had an abiding charm for Seesaw Simpson. When, having obtained permission, she walked to the water pail in the corner and drank from the dipper, unseen forces dragged Seesaw from his seat to go and drink after her. It was not only that there was something akin to association and intimacy in drinking next, but there was the fearful joy of meeting her in transit and receiving a cold and disdainful look from her wonderful eyes.

On a certain warm day in summer Rebecca's thirst exceeded the bounds of propriety. When she asked a third time for permission to quench it at the common fountain Miss Dearborn nodded "yes," but lifted her eyebrows unpleasantly as Rebecca neared the desk. As she replaced the dipper Seesaw promptly raised his hand, and Miss Dearborn indicated a weary affirmative. "What is the matter with you, Rebecca?" she asked.

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is a splendid machine for billing, card indexing, loose-leaf work or correspondence, for the following reasons:

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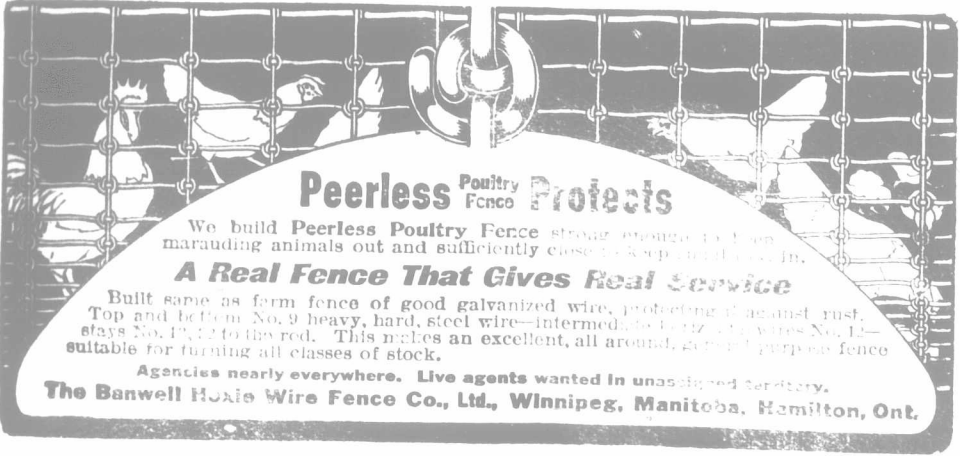
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"I had salt mackerel for breakfast," answered Rebecca.

There seemed nothing humorous about this reply, which was merely the statement of a fact, but an irrepressible titter ran through the school. Miss Dearborn did not enjoy jokes, neither made nor understood by herself, and her face flushed.

"I think you had better stand by the pail for five minutes, Rebecca; it may help you to control your thirst."

Rebecca's heart fluttered. She to stand in the corner by the water pail and be stared at by all the scholars! She unconsciously made a gesture of angry dissent and moved a step nearer her seat, but was arrested by Miss Dearborn's command in a still firmer voice.

"Stand by the pail, Rebecca! Samuel, how many times have you asked for water to-day?"

"This is the t-f-fourth."

"Don't touch the dipper, please. The school has done nothing but drink this afternoon; it has had no time whatever to study. I suppose you had something salt for breakfast, Samuel?" queried Miss Dearborn with sarcasm.

"I had m-m-mackerel, j-just like Reb-b-becca." (Irrepressible giggles by the school.)

"I judged so. Stand by the other side of the pail, Samuel."

Rebecca's head was bowed with shame and wrath. Life looked too black a thing to be endured. The punishment was bad enough, but to be coupled in correction with Seesaw Simpson was beyond human endurance.

Singing was the last exercise in the afternoon, and Minnie Smellie chose Shall we Gather at the River? It was a baleful choice and seemed to hold some secret and subtle association with the situation and general progress of events; or at any rate there was apparently some obscure reason for the energy and vim with which the scholars shouted the choral invitation again and again:—

"Shall we gather at the river,
The beautiful, the beautiful river?"

Miss Dearborn stole a look at Rebecca's bent head and was frightened. The child's face was pale save for two red spots glowing on her cheeks. Tears hung on her lashes; her breath came and went quickly, and the hand that held her pocket handkerchief trembled like a leaf.

"You may go to your seat, Rebecca," said Miss Dearborn at the end of the first song. "Samuel stay where you are till the close of school. And let me tell you, scholars, that I asked Rebecca to stand by the pail only to break up this habit of incessant drinking, which is nothing but empty-mindedness and desire to walk to and fro over the floor. Every time Rebecca has asked for a drink to-day the whole school has gone to the pail one after another. She is really thirsty, and I dare say I ought to have punished you for following her example, not her for setting it. What shall we sing now, Alice?"

"The Old Oaken Bucket, please."

"Think of something dry, Alice, and change the subject. Yes, The Star Spangled Banner if you like, or anything else."

Rebecca sank into her seat and pulled the singing-book from her desk. Miss Dearborn's public explanation had shifted some of the weight from her heart, and she felt a trifle raised in her self-esteem.

Under cover of the general relaxation of singing, votive offerings of respectful sympathy began to make their appearance at her shrine. Living Perkins, who could not sing, dropped a piece of maple sugar in her lap as he passed her on his way to the blackboard to draw the map of Maine. Alice Robinson rolled a perfectly new slate over the floor with her foot as it touched Rebecca's place. To her right, Emma Jane, had made up a little mound of paper balls and fired them "Bullets for you know who."

Altogether, it grew brighter, and when she was left alone with the teacher for her grammar lesson she had nearly recovered her composure, which was more than Miss Dearborn had. The last chattering forefinger whistled through the hall. Seesaw's was a little out of position, had been just as it would naturally be, by one of the scholars.

Rebecca's face brightened as she saw that she was not alone in the corner.

who was only eighteen herself, and in her year of teaching country schools had never encountered a child like Rebecca.

"I hadn't missed a question this whole day, nor whispered either," quavered the culprit; "and I don't think I ought to be ashamed just for drinking."

"You started all the others, or it seemed as if you did. Whatever you do they all do, whether you laugh, or miss, or write notes, or ask to leave the room, or drink; and it must be stopped."

"Sam Simpson is a copycoat!" stormed Rebecca.

"I wouldn't have minded standing in the corner alone—that is, not so very much; but I couldn't bear standing with him."

"I saw that you couldn't, and that's the reason I told you to take your seat and left him in the corner. Remember that you are a stranger in the place, and they take more notice of what you do, so you must be careful. Now let's have our conjugations. Give me the verb 'to be,' potential mood, past perfect tense."

"I might have been
Thou mightst have been
He might have been"

"We might have been
You might have been
They might have been."

"Give me an example, please."

"I might have been glad
Thou mightst have been glad
He, she, or it might have been glad."

"He' or 'she' might have been glad because they are masculine and feminine, but could 'it' have been glad?" asked Miss Dearborn, who was very fond of splitting hairs.

"Why not?" asked Rebecca.

"Because 'it' is neuter gender."

"Couldn't we say, 'The kitten might have been glad if it had known it was not going to be drowned?'"

"Ye-es," Miss Dearborn answered hesitatingly, never very sure of herself under Rebecca's fire; "but though we often speak of a baby, a chicken, or a kitten as 'it,' they are really masculine or feminine gender, not neuter."

Rebecca reflected a long moment and then asked, "Is a hollyhock neuter?"

"Oh yes, of course it is, Rebecca."

"Well, couldn't we say, 'The hollyhock might have been glad to see the rain, but there was a weak little hollyhock bud growing out of its stalk and it was afraid that that might be hurt by the storm; so the big hollyhock was kind of afraid, instead of being real glad?'"

Miss Dearborn looked puzzled as she answered, "Of course, Rebecca, hollyhocks could not be sorry, or glad, or afraid, really."

"We can't tell, I s'pose," replied the child; "but I think they are anyway. Now what shall I say?"

"The subjunctive mood, past perfect tense of the verb 'to know.'"

"If I had known
If thou hadst known
If he had known"

"If we had known
If you had known
If they had known"

"Oh, it is the saddest tense," sighed Rebecca with a little break in her voice; "nothing but ifs, ifs, ifs! And it makes you feel that if they only had known, things might have been better!"

Miss Dearborn had not thought of it before, but on reflection she believed the subjunctive mood was a "sad" one and "if" rather a sorry "part of speech."

"Give me some more examples of the subjunctive, Rebecca, and that will do for this afternoon," she said.

"If I had not loved mackerel I should not have been thirsty," said Rebecca with an April smile as she closed her grammar. "If thou hadst loved me truly thou wouldst not have stood me up in the corner. If Samuel had not loved wickedness he would not have followed me to the water pail."

"And if Rebecca had loved the rules of the school she would have controlled her first," finished Miss Dearborn with a kiss, and the two parted friends.

(To be continued.)

NOVEMBER

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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.
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Miscellaneous.

BIG TURNIP YIELD.

I grew a purple-top Swede turnip this season weighing 21½ lbs., and sound right through. Is this near the record? Had thirty tons to the acre, and fifteen pounds was fairly common. Is this a big yield?
 SUBSCRIBER.

Ans.—You grew a big turnip, and a big yield per acre, though neither constitutes a record. As to what is the record, we would scarcely care to take the trouble to ascertain.

Veterinary.

SURFEIT.

Three-year-old pregnant mare suddenly became covered with lumps, varying in size from that of a pea to that of an egg.
 D. McL.

Ans.—This is surfeit, or nettle rash. It appears from different causes, as over-heating, a change of temperature, engorgement, etc., and sometimes occurs without appreciable cause. The symptoms sometimes disappear almost as quickly as they appeared. Treatment consists in administering a brisk purgative, but as your filly is pregnant, this should be avoided. If not better when you see this, give her a pint of raw linseed oil, and repeat in 24 hours. Also give 4 drams hyposulphite of soda three times daily, and feed lightly. If she be itchy, wash the body with a solution made of 2 ounces each of sulphate of zinc and acetate of lead, dissolved in a gallon of warm water. Keep warm, and rub until dry, and if necessary repeat next day.
 V.

Patent and Trade Marks.

Egerton R. Case, foreign member of the Chartered Institute of Patent Agents, London, England, Registered Patent Attorney, Temple Building, Toronto, has been good enough to provide us with the following news item, printed in the Manchester Guardian:

"I learn that one of the last questions discussed between the Canadian Ministers and the Government, relates to a scheme that is being prepared by the Board of Trade for the assimilation of the laws of patents and trade-marks in the United Kingdom with those of Canada and of the other dominions. This question was first raised at the Conference of Colonial Premiers in 1902, and again at the Imperial Conferences of 1907 and 1911. The majority of the patents issued in the self-governing dominions are granted in Canada, and the number granted in any one year in the whole of the dominions amounts to considerably more than half of those granted in the United Kingdom. It has been generally agreed that uniform legislation on these subjects should be established. In the United Kingdom a patent may be granted to one or more applicants. In Canada a patent may be obtained by the inventor or his assignee. In Australia the applicant for a patent may be the actual inventor or his nominee. In New Zealand one of the applicants for a patent must be the first inventor. In Newfoundland before any person can obtain a patent he must make an oath in writing that he is the inventor or discoverer. In the Transvaal and the Orange Free State one or more of the applicants must be the first inventor or his legal representative. The object aimed at by the Board of Trade is that a patent granted, say, in London, should have validity right through the Empire.

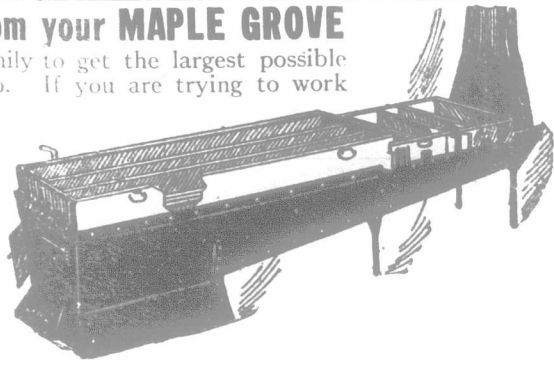
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Attention is called to the advertisement on another page of the auction sale of farm stock, poultry, implements, feed, household goods, etc., the property of Geo. H. Nixon, Hyde Park, Ont., to take place Monday, Nov. 18th.

WHAT DID HE MEAN?

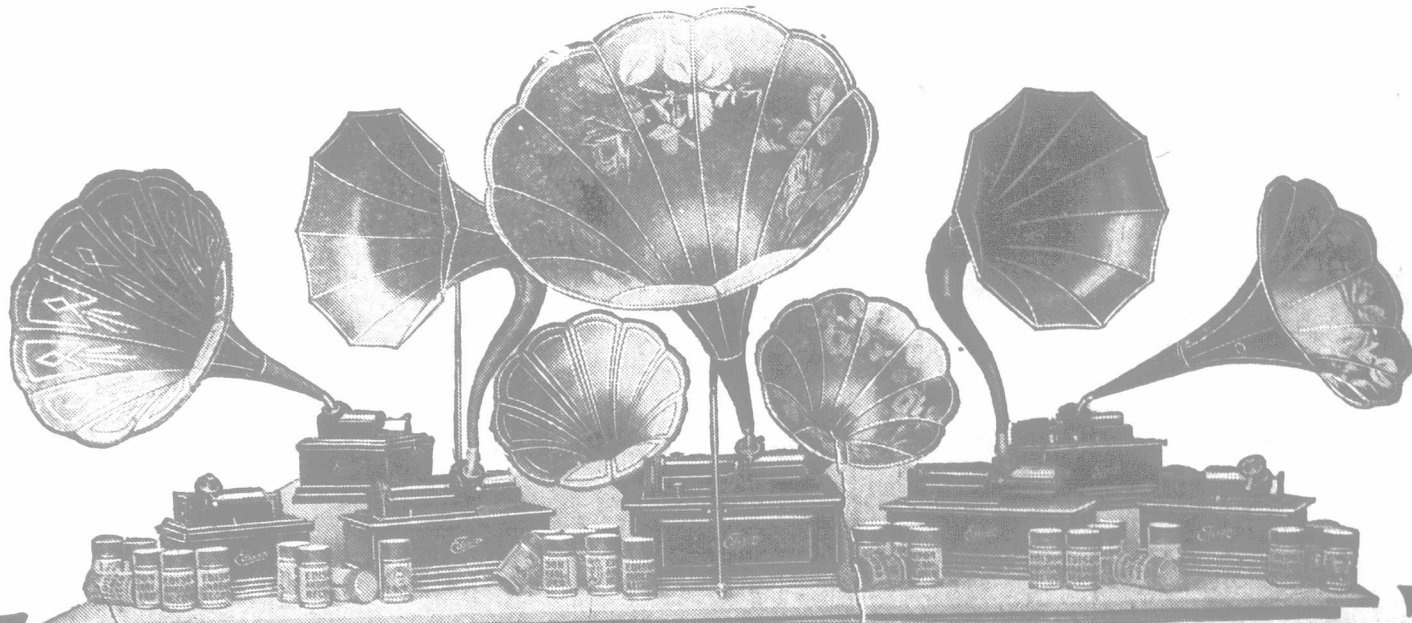
Marks—Say, old man, did I ever tell you about the awful fright I got on my wedding day?

Parks—S-s-h-h! No man should speak like that about his wife.

TRADE TOPIC.

THE CHARMING WINTER RESORTS OF CALIFORNIA, MEXICO, FLORIDA, ETC.

Now is the time to take advantage of a trip to a milder climate and escape the cold winter months. Round-trip tourist tickets are issued by the Grand Trunk Railway to California, Mexico, Colorado, Pacific Coast points, and the Sunny South, at low rates, giving choices of all the best routes. Features in connection with this route: only double-track line to Buffalo and Chicago; fast service; modern equipment; unexcelled dining-car service; palatial electric-lighted Pullman sleeping-cars; all elements of safety and comfort. Ask nearest Grand Trunk agent for full particulars, or write A. E. Duff, D. P. A., Union Station, Toronto, Ontario.



YOUR CHOICE FREE
 Of These Wonderful New Style EDISONS Shipped

THE EDISON! THE GENUINE EDISON!—Thomas A. Edison's superb new style instrument shipped free on this REMARKABLE offer

Mr. Edison Says: "I want to see a Phonograph in every Home."

For the Phonograph is Mr. Edison's pet and hobby. He has worked for years to make this Phonograph excel all others, and now you may obtain any of these wonderful new style outfits on an ultra liberal offer.

Just Take Your Choice You Don't Have To Buy Anything

The Edison Offer We will send you a new model Edison Phonograph and your choice of all the Amberol records on an absolutely free loan—no obligations, no deposit, no guarantee nor C.O.D. to us whatever. We want you to have all the waltzes, two-steps, vaudevilles, minstrels, grand operas, also the sacred music, etc. by the world's greatest artists. Entertain your family and your friends. Give plays and concerts right in your own parlor. Hear the songs, solos, duets and quartettes, the peering organ, the brass bands, the symphony orchestras, the choirs of Europe's great cathedrals, the pianos and violin virtuoso concerts—all these we want you to hear free as reproduced on the Edison phonograph. Then—when you are through with the outfit—send it back to us.

My Reason: Why should we make such an ultra liberal offer? Why should we go to all this expense and trouble just so you can have these free concerts? Well, I'll tell you. We are tremendously proud of this new instrument. When you get it in your town we know everybody will say that nothing like it has ever been heard—so wonderful, so beautiful, such a king of entertainers—so we are sure that at least some one—not you then somebody else, will want to buy one of these new style Edisons (especially as they are being offered now at the most astounding rock-bottom price—and on easy terms as low as \$2.00 a month). Perhaps you yourself will be glad to keep this outfit. But even if nobody buys we'll be glad anyway that we sent you the new Edison on the free loan—for that is our way of advertising quickly its wonderful superiority.



Get Free the New Edison Book

We will send you our handsome new Edison book and full particulars of our wonderful free loan offer absolutely free and prepaid. You should see our grand new Edison book. It will give you the list of the thousands of records and all the machines that you have to choose from. Write today—do not delay. Get the free book and learn about this wonderful free trial offer. Send postal or letter, or just the coupon without any letter—but WRITE NOW!

Edison Phonograph Distributors

Address: F. K. Babson, Vice-President and Gen'l Manager
 Dept 7538 355 Portage Ave., Winnipeg, Canada
 Western Office: 65 Post Street, San Francisco U. S. Office: Edison Block, Chicago, Ill.

Free Catalog Coupon
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 Vice-President & Gen'l Manager
 Dept. 7538, 355 Portage Ave., Winnipeg, Canada
 Western Office: 65 Post Street, San Francisco
 U. S. Office: Edison Block, Chicago, Ill.

Without any obligations on me whatsoever, please send me your new Edison Book and full particulars of your new special free loan offer on the new style, improved EDISON Phonograph.

Name _____ D2R
 Address _____

**50 IMPORTED
Clydesdale
FILLIES**

We will sell at the Dominion Hotel,
HAMILTON, ONT., on

Wednesday, Nov. 27, 1912
at 12.30 p.m.

one of the largest and most select bunches of Clyde fillies offered to the public at their own price in years. A number have been bred to some of Scotland's most noted sires. Positively every animal will be sold to the highest bidder, with no under-bidding. If you want a good filly at a reasonable price and a square deal, come to this sale. Sale will be held rain or shine.

GEO. JACKSON, Auctioneer

D. C. FLATT & SON, Props.

R. R. No. 2, HAMILTON, ONT.

Twenty-ninth Annual Ontario Provincial

**WINTER FAIR
GUELPH, ONTARIO**

December 9th to 13th, 1912

The best Horses, Beef Cattle, Dairy Cattle, Sheep, Swine, Seeds and Poultry, produced on the best farms in Ontario, will meet here in competition and in the Lecture Hall you will learn how they were produced, from practical lectures, given each day by experts on subjects relating to **LIVE STOCK, SEEDS AND POULTRY.**

SEED ENTRIES CLOSE - NOVEMBER 16th
LIVE STOCK ENTRIES CLOSE NOVEMBER 23rd

Reduced freight and passenger rates on all Railways

WM. McNEIL, President,
LONDON, ONTARIO

A. P. WESTERVELT, Secretary,
Parliament Buildings,
TORONTO, ONTARIO

GREAT SALE

30 IMP. CLYDESDALE FILLIES

By Auction

at ORMSBY GRANGE STOCK FARM, ORMSTOWN,
Province of Quebec, on

Thursday, November 21, at ten o'clock

(on arrival of GREAT TRAINS)

Special rates are being made for the benefit of the application of the above by post card now.

By J. H. MCHIRAN

MENTION THE FARMER'S ADVOCATE WHEN WRITING ADVERTISERS.

**Borna's Disease in the
Middle West.**

"Probably thirty thousand horses perished in August and early September in the Central West as the result of an epidemic now definitely declared to be a form of cerebro-spinal meningitis called Borna's disease. The loss in money, conservatively estimated, is more than three million dollars. How much will be added to this amount through the farmers' inability to plant their fall wheat it is impossible to say. Appearing first in Ness County, Kansas, the disease spread rapidly over the western counties, into Colorado and Nebraska and, in an unknown degree, into Missouri and Oklahoma. The first cases were reported August fifth. In less than five weeks more than twenty thousand horses had died in Kansas, farm work everywhere was abandoned, scientific men, mostly veterinarians, were in the State from many distant points trying to identify the strange malady, and farmers in a lamentably large number of cases, were panic-stricken. They sat about from day to day idly discussing the one topic, or they wandered, speechless, from barn to house, and from house to town, like men whose homes have been wrecked.

"Within a few days after the first reports were received at Manhattan, the State Agricultural College sent six or seven experts to Hoxie, a central point in Sheridan County, and there established a laboratory. The United States Department of Agriculture sent seventeen men to help in the investigations. Missouri, Illinois, New York, Colorado, and Nebraska, had scientists on the spot. More than a thousand horses were submitted for treatment by anxious owners, or carcasses were taken to the laboratory to be examined by the bacteriologists or pathologists. The Hoxie town administration provided buildings for the work; the farmers gave their horses for experimentation; and newspaper reporters from many cities in the Central West were present to record the least development. It was like a great convention, except that over it there seemed to hang a pall that was almost tragic. Men said little and worked hard."

These two paragraphs, from an article by Charles Dillon, in the Country Gentleman, convey a graphic impression of conditions in those American States, which have been ravaged by the mysterious horse plague that had been baffling the veterinarians, as "The Farmer's Advocate" readers were aware.

According to Mr. Dillon, the cause has been found by Dr. T. P. Haslam, pathologist for the Kansas Agricultural College, who had previously spent several years studying blind staggers, and had been the first to announce that he had traced this disease to moldy corn. On September 18th, says Mr. Dillon, Doctor Haslam discovered that this new mysterious epidemic was Borna's disease, a form of cerebro-spinal meningitis, known in Germany, it seems, for about twenty-five years, but not hitherto recognized in America.

The next step was to see whether horses could be vaccinated, and thus immunized against the germ. A serum produced by Dr. Haslam has been tried, with the following rather hopeful results, though it is not announced positively that the serum is yet perfect:

Horses vaccinated the first time, 611.
Horses taken sick after first vaccination, 16.

Time between vaccination and sickness, from one to four days.

Horses died after vaccination, 2.

Time after vaccination, before death, from one to two days.

Horses vaccinated a second time, all of them well, 160.

The fact that sixteen of the horses developed the disease after vaccination, and that all except two recovered, is taken to indicate that the vaccine treatment is effective, for the ordinary percentage of recovery has been only about ten per cent.

The germ is described as being in damp places, and, strangely enough, is said to attack only one kind of animal in a single outbreak.

In Germany, where outbreaks of the kind have been recorded from time to time in the last quarter century, the epidemic has increased in the territory

covered and in the degree of fatality. The German authorities agree that the disease is transmitted through feed and water. The winds scatter it, and it is carried by streams. A high wind will blow a piece of manure a long distance, carrying the germs twenty or twenty-five miles, and dust has taken them the same way. The reason some horses in a herd take the disease while others escape, is explained by the different susceptibilities, exactly as in an outbreak of cerebro-spinal meningitis in man.

"In Germany the police regulations require affected horses to be segregated, and the carcasses of those that die of it to be burned. There is no quarantining of healthy horses in Germany, because the disease has been declared not contagious.

"Though the scientists have been working to good effect, the Department of Agriculture has put out a warning recommendation suggesting that the first principle in treatment should be a total change of feed and forage. Horses kept in the stables should be fed sound forage and grain from an uncontaminated source. Horses already affected should be taken to the barn or corral, fed on wholesome, clean forage, and water that is absolutely unpolluted.

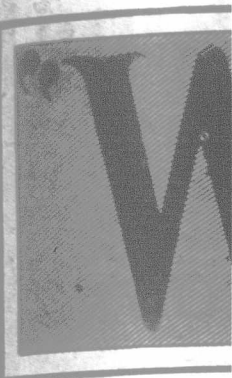
"There is no doubt in the opinion of many veterinarians of standing, that in numerous cases horses have been killed by overdosing—drenching, as it is called—with dope that would kill anything. Fake cures by the hundred have been sold. Unauthorized veterinarians, or persons calling themselves veterinarians, have defrauded farmers of their money, and have helped to kill their horses. Instances substantiating this assertion have been many. A laxative for the horses is imperative, but it must be given at the right time, and it must be the right laxative. At the first indication of trouble, the Federal advisers declare, the horses' bowels should be emptied to remove the poison, but no medicine should be given through the mouth, usually because of the great difficulty in swallowing. If throat paralysis has set in, drenching would bring on pneumonia. Fifteen grains of barium chloride injected into the jugular vein, or two grains of eserine under the skin, if the animal is not too greatly depressed, will usually act promptly. Intestinal disinfectants, such as calomel, salicylic acid, and preparations of cresols, are also used. If much weakness is shown, and the temperature is below normal, it has been found wise to give aromatic spirits of ammonia, digitalis, alcohol, ether, or camphor. Injections of warm water were found to be good, and warm blankets wrung out of hot water may be applied to the body. Subsequent treatment consists of two-grain doses of strychnine twice a day, or a mixture of two drams of tincture of nuxvomica and half an ounce of Fowler's Solution given at one dose; and repeated three times a day. This will combat the effects of poisons in the system."

TRADE TOPICS.

SEEDS AND POULTRY AT THE WINTER FAIR.—While preparations are being made for a larger fair than ever in all departments of the Winter Fair at Guelph, December 9th to 13th, the seed section is receiving particular encouragement. The Canadian Seed-growers' Association, having added five hundred dollars to the section for their members, and the amount offered in the standing field-crop competition, has been doubled. Seed entries close November 16th. The poultrymen are planning for a bigger show than ever at this year's Winter Fair. Over four thousand dollars in cash prizes is being offered in the regular premium list. In addition, a large list of specials will be offered, particulars of which will be given next week. Poultry entries close November 23th.

GOSSIP.

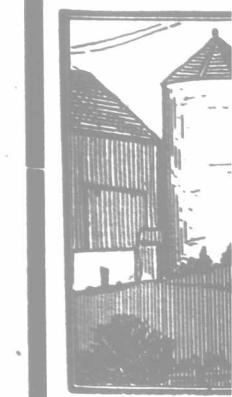
The Secretary of the Canadian Jersey Cattle Club, R. Reid, Berlin, Ont., in an advertisement, calls attention to the splendid records of Jersey cows in International dairy tests in competition with other breeds, proving most economical producers of milk and butter. A free booklet of facts may be had on application to the Secretary as above.



NO
should
I
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Cement.
"Wh
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THE mix
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CONCRETE is
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POOR COPY

Why should I use Canada Cement?

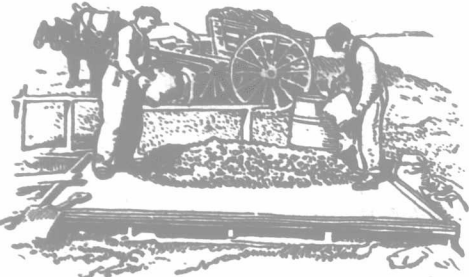


NO FARMER who has used Canada Cement asks that question, because his first trial answered it to his complete satisfaction. Yet it is only natural that a farmer who has never used concrete—perhaps yourself—should require convincing reasons before deciding to use it himself.

If we knew where you lived, and knew your name and the names of your neighbors, we could tell you of many men in your own locality who would be glad to tell why they are using Canada Cement. Since that is impossible, this advertisement will try to give you an answer to your question.

“What is Concrete?”

CONCRETE is an artificial stone. It is a mixture of cement, sand and stone, or of cement and gravel, with water. The proportions of the various materials vary according to the purpose for which the



THE mixing and placing of concrete is simple, and is easily learned. No elaborate tools are needed.

concrete is to be used. This mixture hardens into an artificial stone. This hardening process is rapid at first, and in a few days the mixture is as hard as rock. After that, time and weather, instead of making it crumble, actually make it stronger.

Since stone, sand and gravel may be found on nearly every farm, the only cash outlay is that required for cement. Cement forms only a small part of finished concrete, and this expense is relatively small.

Concrete may be mixed and placed at any season of the year (in extremely cold weather certain precautions must be observed) by yourself and your regular help.



CONCRETE is the ideal material for barns and silos. Being fire, wind and weather proof, it protects the contents perfectly.

The mixing and placing is simple, and full directions are contained in the book which we will send you free.

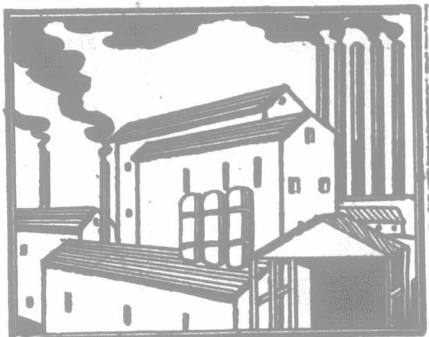
“What Can I Use Concrete For?”

CONCRETE can be used for all kinds of improvements. By having a small supply of cement on hand you will be able to turn many an otherwise idle afternoon to good account by putting a new step on the porch, or making a few fence posts,

or repairing an old foundation wall. It is a mistake to suppose that you have to be ready for a new barn or silo to be interested in concrete. Besides, it is just as well to become familiar with the use of concrete on small jobs, for then you will be better able to handle big jobs later on.

First cost is last cost when you build or concrete. Concrete improvements never need to be repaired. They are there to stay, and every dollar put into them adds several dollars to the cash value of your farm, and in many cases improvements of this everlasting material are actually cheaper in first cost than if they were built of wood. The cost of lumber is constantly increasing, and it will not be many years before its cost will be prohibitive.

YOU should use concrete, because by so doing you can make your farm more attractive, more convenient, more profitable and more valuable.



OUR mills are located all over Canada, so that no matter where you live you can get Canada Cement without paying high prices caused by long freight hauls.

“Why Should I Use Canada Cement?”

WE were the first cement company to investigate the farmer's needs, and to point out to the farmers of Canada how they could save money by using concrete. We conducted an exhaustive investigation into the subject, learned the difficulties they were likely to encounter, and how to overcome them, and published a book, “What the Farmer Can Do With Concrete,” containing all the information that the farmer could need.

We have made a special effort to give the farmers of Canada not only the best cement that can be

made, but also every possible assistance in the use of concrete. Our free Farmers' Information Bureau is at the service of every farmer in Canada. All

questions concerning the use of concrete are answered at once, and the Bureau is always glad to receive suggestions from farmers who have discovered new uses for cement. Last year we conducted a \$3,600 Cash Prize Contest, in which farmers in every Province participated. A second contest, in which three times as many prizes are offered, has been announced for this year.

You can easily see why a company that is devoting this much attention to the farmers' needs is in better position to give you—a farmer—satisfactory service. Canada Cement will always give you satisfactory results. Every bag and barrel must undergo the most rigid inspection before leaving the factory.



THIS sign hangs in front of nearly all our dealers' stores. Let it guide you to the place where the best cement is sold.

YOU should use “CANADA” Cement because its makers offer you not only the best cement made, but also careful, conscientious, personal assistance in making use of it.



THIS book of 160 pages, handsomely bound and illustrated with photographs, was the first, and is the best work describing the farmers' uses for concrete ever published. See free offer on this page.

IF you haven't received a copy of “What the Farmer Can Do With Concrete,” write for it at once. It will be sent absolutely free, without obligating you in any way. Use a post card or clip out the coupon. We will also send particulars of the 1912 Cash Prize Contest. Address:

CANADA CEMENT COMPANY, LTD.
550 Herald Building, Montreal

Please send me, free, your book: “What the Farmer Can Do With Concrete,” and full particulars of the 1912 Cash Prize Contest.

My name is.....

Address.....

**Canada
Cement Company
LIMITED**
Farmers' Information Bureau
550 Herald Bldg. MONTREAL, QUE.

FREE Fine **BOOK FREE**
 Yes, absolutely free. Tell all about
 Taxidermy and how we teach this fascinating and lucrative profession by mail.
LEARN BY MAIL TO
STUFF BIRDS
 and animals, tax hides, make eggs, etc. Do
 not miss your chance with beautiful specimens.
 Make big profits during your spare time. Write
 now for our great taxidermy book. It's FREE!
 Northwestern School of Taxidermy
 5038 Box Building Omaha, Nebraska

**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 pay me first, and I'll give you back your money if the horse isn't all right."

Well, 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 clothes, fray the edges, nor break buttons, 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 50 cents a week 'till paid for. 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. K. MORRIS, Manager 1900 Washer Co.,
 857 Yonge St., Toronto, Can.

**BUSINESS AND
 SHORTHAND**
 Subjects taught by expert instructors
 at the

Westervelt School
 Y. M. C. A. BLDG.,
 LONDON, ONT.
 Students assisted to positions. College
 in session from Sept. 3rd. Catalogue
 free. Enter any time.
 J. W. Westervelt J. W. Westervelt, Jr.
 Principal Chartered Accountant
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**MERCHANTS
 PRODUCE CO.**
 Butter Eggs Poultry Honey
 Beans Apples Potatoes, etc.
 Our constantly growing trade demands
 large supplies of choice farm produce.
 We need yours. Write for weekly
 market letter.
 57 Front St. E., Toronto
 Established 1889

**QUESTIONS AND ANSWERS.
 Miscellaneous.**

MATERIAL FOR WALL.

Which would make the best and strongest wall, barn-clay brick, cement block, or cement-slop wall? Do you think the frost would hurt the clay brick so as to weaken the wall? I am raising a barn, 50 x 80 feet, and want to put the most durable wall under it. F. T. S.

Ans.—Any of these materials would, if properly constructed, make a good wall. The cement-slop wall would, in all probability, be the strongest, but any of them could be constructed strong enough for all practical purposes.

WIND SUCKER.

What can I do for a yearling colt that sucks wind? I have had a tight strap around her neck, but it does not seem to remedy it much. T. S.

Ans.—Wind sucking is a vice, and is liable to induce digestive trouble by the repeated introduction of large quantities of air into the stomach. It is a very difficult habit to check. Buckle the strap tightly around the throat. Of course, it must not be sufficiently tight to interfere with respiration or swallowing, but so tight that the neck cannot expand as it must in order that the vice can be practiced. This may cure her in time, but in many cases the practice is again noticed if the throat strap is left off.

APPORTIONMENT OF TAXES.

We bought a property (farm). Soon after occupation, a tax paper was served on us with the late owner's name on it. They lived here many years. We came here three months before the rates for the year became due, in August. Are we liable to pay for the whole year, though only in residence three months, or should the late owners pay them? N. S.

SUBSCRIBER.

Ans.—This is a matter that is usually governed by the agreement between the parties to the sale and purchase. If the agreement is silent about it, then, according to the general rule, the taxes for the current year would be apportioned between the parties as of the date of possession of the property being given and taken. In either case, you would pay the taxes for the entire year in the event of the vendors declining or failing to do so, and then look to them for such proportion, if any, as under agreement, or in accordance with the general rule, they are legally liable to contribute; and you could, if necessary, sue them for such proportion.

GOSSIP.

Fifty-two Clydesdales for Canada, shipped from Glasgow, October 19th, were consigned to the following importers: A. L. Dollar, High River, Alta.; Vanstone & Rogers, North Battleford, Sask.; G. A. Brodie, Newmarket, Ont.; J. D. Duncan, Montreal, Que.; Alex. McNiven, St. Thomas, Ont.; Alex. G. Duncanson, Dutton, Ont.

On October 23rd, a draft of 38 head of Shorthorns from the herd of His Majesty King George, at The Royal Farms, Windsor, were sold by auction. The cows met an excellent trade, and four representatives of the Clipper tribe made splendid prices. The two-year-old heifer, Clipper Rose, by Golden Treasure, went to Mrs. Burnyeat at \$2,500, and the yearling, Clipper Cowslip, by Cowslip King, sold for \$2,000, to Hon. H. C. Lewis. The highest price for a bull was \$1,400, for the yearling, Sunstar, purchased by D. MacLennan. The average for 29 cows and heifers was \$640.

"I want to buy a bicycle to ride to the farm on," asked the farmer. "I'll wrap you up in a bicycle," replied the clerk. "I can't do that," replied the clerk. "I'll wrap you up in a bicycle," replied the farmer. "But I can't do that," replied the clerk. "I'll wrap you up in a bicycle," replied the farmer, stroking his chin. "I'm more foolish, I guess, than I would be if I had a bicycle."

No More Cranking

No more back-breaking, arm-cramping cranking—no more broken wrists nor smashed teeth. The drudgery, danger and exasperation of cranking are eliminated in the

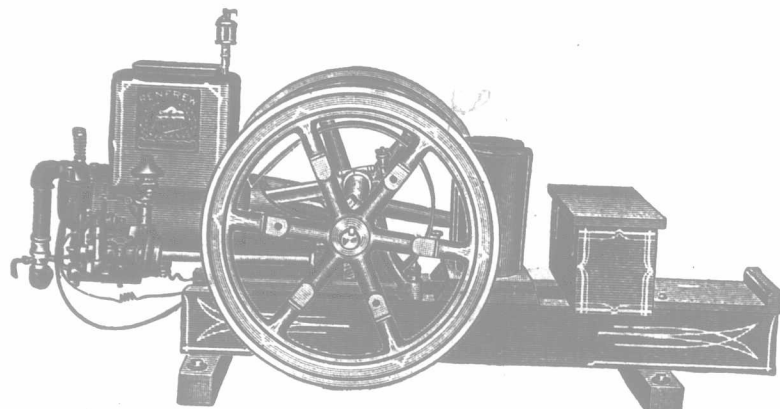
Renfrew Standard

gasoline engine. It starts without cranking, starts easily under all conditions. Your boy can easily start the Renfrew-Standard and run it. It's a pleasure to own such an engine. The latest and best type of gasoline engine for sale in Canada. Has frame and cylinder cast in one, insuring at all times perfect alignment. Carbureter is of simple construction and proper proportion to make a perfect mixture. The governor is of flyball type designed in correct proportions to insure close regulation of the engine. The importance of the foregoing points of construction are fully explained in our bulletin. Write for a copy. Renfrew-Standard gasoline engine is backed and guaranteed by the same organization that build and sell the famous "Standard" cream separator.

The Renfrew Machinery Company, Limited

Head Office and Works: RENFREW, ONTARIO
 Sales Branches at Winnipeg, Man., and Sussex, N. B.

Write us about the Gifford 1 1/2 h. p. engine—the handiest, most compact and most wonderful little engine made.



2 1/2 to 60 h.-p. Semi-portable, as illustrated; stationary and portable.

WHAT IS

BASIC SLAG

Basic Slag is the cheapest and best form of applying Phosphoric acid to the soil.

Why is Phosphoric acid applied to the soil? Because it is one of three essential elements of plant food.

It matters not how much nitrogen and potash your soil contains, if it is lacking in Phosphoric acid you are bound to be a loser when you harvest your crop.

Basic Slag applied to orchards this fall will result in more fruit and a better quality. Try a dressing on part of that old pasture and watch the result. Do likewise with your fall wheat and land intended for sugar beets, beans, alfalfa, oats, barley and corn.

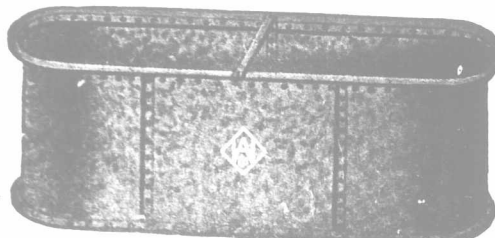
It will pay you in dollars. Why not let us prove it you?

Write for Basic Slag literature. Purchasing dealers wanted everywhere.

THE CROSS FERTILIZER CO., LIMITED
 Sydney, N. S.

ALEX. E. WARK, Ontario Sales Manager, WANSTEAD, ONT.

H.-A. STEEL TANKS

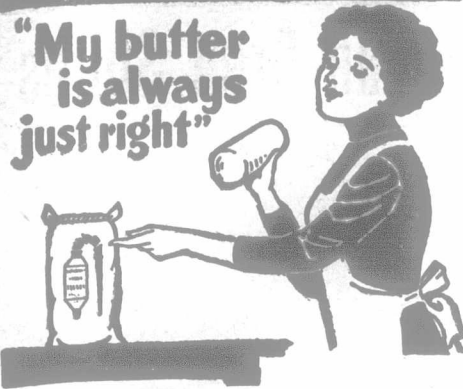


Are the most durable and handy stock-watering tanks on the market.

We use nothing but the very best annealed steel, heavily galvanized, in the construction of them. All seams are securely locked together and soldered in small tanks, and in larger ones the seams are rivetted.

We also make a complete line of water-well supplies. "BAKER" Windmills, Pumps, Cylinders. Ask for Tank Catalogue No. 21, or Windmill Catalogue No. 28.

THE HELLER-ALLER CO., Windsor, Ontario



What's The Matter With Your Butter?

Does it lose its flavor quickly?
Does it acquire a bitter taste in a few days?

Are you receiving any complaints about the butter not keeping well?

Use the salt that does make good butter every time and all the time—

WINDSOR DAIRY SALT

It is always the same in purity and strength. It won't cake—dissolves evenly—and makes the most delicious butter you ever tasted.

The prize-winners at all the fairs, used Windsor Dairy Salt—that's why they won all the prizes.

Farming as an Occupation.

The relative desirability of farming as compared with other occupations is largely a personal matter, and must be determined by the circumstances, tastes, and desires of the individual concerned.

Considered from the standpoint of stability, safety, and profitableness, there are considerable differences between farming and other lines of business. It is for the most part made up of small, independent units. Farming is, perhaps, more stable and less susceptible to serious interruption from disturbances in the financial world than any other business. On the other hand, it is perhaps more dependent on the elements than any other form of business. In addition, the average profits in farming are small.

Farming does not readily lend itself to corporation methods of conducting business, and is therefore pre-eminently a business of individual, rather than corporate, enterprise. In fact, farmers as a class live so much to themselves, and depend so little on each other in the conduct of their business, that it is difficult to secure co-operation among them even when this co-operation would be highly advantageous to those concerned. Yet the hope of the future, that the farmer may be able to cope successfully with those who are, in a sense, organized against him, or who are in a position to take unfair advantage of him, lies in the possibility of developing co-operative effort, especially in the matter of buying and selling. This is more especially true in the case of selling perishable farm products, such as fruit and truck crops.—Bulletin 259, U. S. Department of Agriculture.

GOSSIP.

R. Hamilton & Son, Simcoe, Ont., advise that they have recently sold to John Iles, of Robb, Ont., the gray Percheron stallion, Ilderbert (3028), a grand, big, flashy four-year-old that weighs now nearly a ton. He stood second in a class of 27 at the Dominion Exhibition at Ottawa this year, and third at Toronto. He is a worthy son of the great sire, Oliver (58082), and is an approved horse himself, and will certainly greatly improve the stock of any section. Mr. Iles is to be congratulated on securing such a high-class sire. This is the sixth stallion this firm has sold Mr. Iles, which speaks well for the way they treat their customers.

A BIG SALE OF HIGH-CLASS SHIRES

Porter Bros., of Appleby, Ont., the well-known importers and breeders of Canadian-type Shire horses, with their usual business acumen, have decided to hold an annual sale of this great English draft breed, and the first sale will be held at the farm, a few miles from Burlington Junction Station, just outside the city of Hamilton, on Thursday, December 5th. Their offering at this sale is one that should draw a big crowd of fanciers for this great draft breed, as never before in this country was so choice a lot offered by auction. Among them are many winners at Toronto, London, Ottawa, and Guelph, including first- and second-prize winners, and champions. They will also sell their noted sire, Baron Kitchener, the sire of last year's champion all around, Kitchener's Topsy, the sensational three-year-old that was sold for a long price to the Experimental Farm, at Saskatoon, Sask. Conveyances will meet morning trains at Tansley Station, G. T. R., which trains will include connections at Georgetown, from Toronto and Guelph, from north of Georgetown, and from Hamilton. There will also be conveyances to meet the 12-o'clock noon train from Hamilton, at Bronte. Make a note of these connections. For a further notice of this sale, see next week's issue. Write for catalogue to Porter Bros., Appleby P. O., Ont.

Lawyer (to judge)—"I admit that my client called the plaintiff an 'ox,' but, seeing the price of meat, I consider that rather as a compliment than an insult."

MOLASSINE MEAL

Figs fetch higher prices and are ready for market three weeks earlier when fed on MOLASSINE MEAL than when fed on any other food. It is the best food known to Science for all Live Stock. It puts the digestive organs in perfect condition and enables the animals to obtain all the nutriment of their entire food. It keeps them free from worms.

Get the genuine made in England

THE MOLASSINE CO., LTD., LONDON, ENGLAND
Distributors for Canada, L. C. PRIME CO., LTD.
St. John, N.B. 402 Board of Trade Building, Montreal. Pacific Building, Toronto.

ELECTRIC LIGHT for the FARM

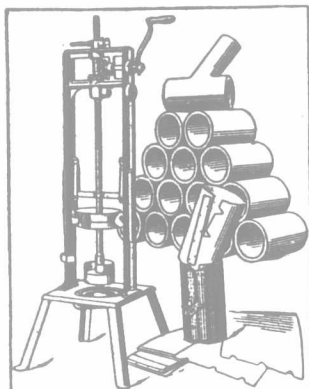
Light for all your buildings at any hour of the day or night. No danger of fires or explosions from lamps or lanterns. No lamps to clean and fill. And with all its advantages

Electric Light is not Expensive

Burning all 50 lights of this system for 5 hours would only cost about 10 cents for fuel oils. You would seldom burn all lights at once hence this low cost would be much reduced. Let us give you full particulars. Write for Catalog No. CD2524

The Canadian Fairbanks-Morse Company Limited
444 ST. JAMES ST. :: MONTREAL

MAKE YOUR OWN TILE



Cost \$4.00 to \$6.00 per 1,000

Hand or Power

Send for Catalog

Farmers' Cement Tile Machine Co. Walkerville, Ont.

Messrs. Hickman & Scruby COURT LODGE, EGERTON, KENT, ENG. EXPORTERS OF

Live Stock of all Descriptions

Draft horses of all breeds a specialty. Intending buyers should write us for particulars, as we can place before them the most attractive proposition they have yet experienced. We can send highest references from satisfied buyers of nearly all breeds.

Cream for Churning Wanted by the Maple Creamery. Butter and Ice Cream Mfg. Co., 15 Elizabeth St., Toronto, Ontario.

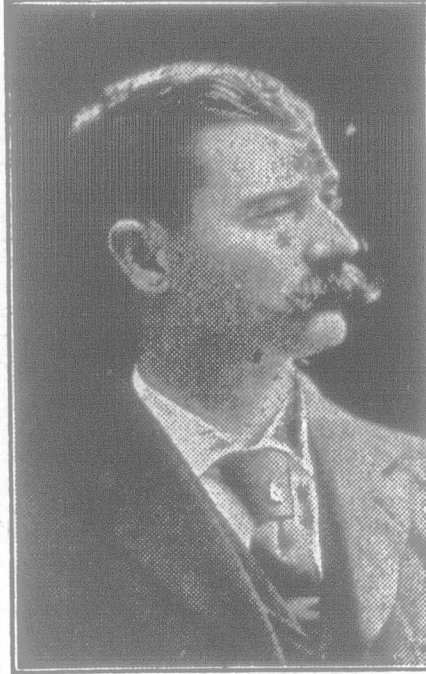
Mr. Borden has been telling the anecdote concerning two "brither Scots," who used to foregather in a "dry" district, each bringing with him a portable spring of comfort in the shape of a bottle of whiskey.

One of them was asked one day by a "third party" whether the other, Jock Anderson, did not get a little drunk sometimes.

"Drunk!" was the reply. "Man, the last time I was wi' him, Jock got that drunk I couldna see him."

"What sort of a tablet shall we erect over your grave when you are gone?" he asked of the man who had long suffered.

"Well," said the cheerful victim of stomach trouble, "I think a dyspepsia tablet would be as appropriate as any."



1,000 PERCHERONS (Stallions and Mares) WANTED IN ONTARIO

I HAVE sold nearly all I brought over this summer, and am leaving for France the 22nd of this month for another shipment of Percherons, stallions and mares. They will arrive at my barn, Weston, Ontario, about Dec. 1st. Will have an exhibit at Guelph Fat Stock Show. Price will be in reach of everyone that wants a good stallion or a big brood mare, and terms to suit. Write for particulars, or better come. No trouble to show what I have. Visitors always welcome. Address:

J. B. HOGATE
West Toronto, Ontario
Barns at Weston, Ont.

QUALITY AND SIZE IN CLYDESDALES For the best the breed produces in the combination of use, character, quality, breeding and action, see my 1912 importation of Clyde Stallions and Fillies. Prices and terms unequalled. F. O. and Sta., G. T. R. L. D. 'Phone

CLYDESDALES OF CANADA'S STANDARD My second importation for 1912 has arrived, my third will be here in six weeks. In stallions or fillies I have the farmers' 'd at farmers' prices. Come and see me. GEO. A. BRODIE, Newmarket P. O. Newmarket or Stouffville Stns., G. T. R.; Gormley, C. N. R. L.-D. 'phone from either

A Few Choice Clyde Fillies—I am offering several choice and particularly well-bred Clydesdale fillies from foals of 1911 up to 3 years of age, imp. sires and dams. Also one stallion colt of 1911, imp. sire and dam. These are the kind that make the money. HARRY SMITH; Hay P.O., Ont. Exeter Sta. L.-D. 'Phone.

Stallions — CLYDESDALES — Fillies I have a big importation of Clyde stallions and fillies just landed; a lot that cannot be duplicated to-day in Scotland, and never was in Canada. Let me know your wants. ROBT. BEITH, Bowmanville, Ont.

Clydesdales and Percherons Stallions and fillies of either breed. Over forty head to select from. Draft horses in reality as well as in name. Highest types of the breeds. Come and see them. Terms and prices to suit. T. D. ELLIOTT & SON, BOLTON, ONTARIO

Shire Stallions and Mares, Shorthorn Cattle (both sexes); also Hampshire Swine. Prices reasonable. PORTER BROS., APPLEBY, ONT., Burlington Station. 'Phone.

Horse Owners! Use GOMBAULT'S Caustic Balsam

A Sore, Sponty, and Pustule Cure
The safest, Best BLISTER ever used. Takes the place of all liniments for mild or severe action. Removes all Bunches or Blisters from Horses and Cattle. SUPERSEDES ALL CAUSTERY OR FIRING. Impossible to produce sore or blisters. Every bottle sold is warranted to give satisfaction. Price \$1.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use. Send for descriptive circulars. The Lawrence-Williams Co., Toronto, Ont.

INSURE YOUR HORSES



Your Stallion is Worth Insuring Against Death

For an equal premium we grant a more liberal Policy than any other Company. We issue Policies covering all risks on animals. Horse shipments insured for 5, 10, 15, 20 or 30 days at very low premiums.

Prospectus Free on Demand
General Animals Insurance Co. of Canada

Head Office, 71A St. James St., Montreal
OTTAWA BRANCH: 106 York St., Ottawa
TORONTO AGENCY: J.A. Caesar, Room No. 2, James Building, Toronto, Ontario

Stallion Inspection

UNDER THE ONTARIO STALLION ACT

Inspection points and dates now arranged.

Persons wishing stallions inspected should apply for particulars to:

A. P. WESTERVELT,
Secretary Stallion Enrolment Board,
Parliament Buildings, Toronto.

THICK, SWOLLEN GLANDS

that make a horse Wheeze, Sneeze, have Thick Wind or Udder-downs, can be removed with

ABSORBINE

also any Bunch or Swelling. No blister, no hair gone, and horse kept at work. \$2 per bottle delivered. Book \$1 free. ABSORBINE, J.R., Liniment for manning, Reduces Gout, Tumors, Wens, Painful, Knotted, Varicose Veins, Ulcers. \$1.00 and \$2.00 a bottle at dealers or delivered. Book with testimonials free. W.F. YOUNG, P.D.F., 258 Lyman Bldg., Montreal, Can.



NOTICE TO HORSE IMPORTERS

GERALD POWELL,

Commission Agent and Interpreter,
NOGENT LE ROTROU, FRANCE

Will meet Importers at any port in France or Belgium, and assist them to buy Percherons, Belgians, French Coach horses. All information about shipping, banking, and pedigrees. Many years experience; best references. Correspondence solicited.

Aberdeen-Angus Cattle Mature early. Best of best. Several young bulls for sale. Apply
MANAGER "GRAPE GRANGE" FARM
Clarksburg, Ont.

Aberdeen-Angus—A few bulls to sell yet; also females. Come and see them before buying. Drumbo Station.

Walter Hall, Washington, Ont.

MENTION "FARMER'S ADVOCATE."

Growing Hay for Market.

Some sections of Canada produce large quantities of hay for sale, and a great deal of it is baled for delivery. Buyers have had some trouble in getting good baled hay, some sellers mixing the grades. The following summary of United States Farmers' Bulletin 508, on "Market Hay," gives some idea of the requirements of hay in that country, and which are equally applicable here:

(1) The demand for market hay is for better grades than those with which the market is now supplied, and the remedy for these conditions lies largely in improved meadow management, curing methods, and baling processes. Properly-cured hay, if well baled and free from weeds, brings a good price in every market, but a knowledge of the conditions existing at the particular market in which his product will be sold is essential to the successful hay farmer.

(2) Many farmers produce hay merely as an incidental part of the output of their farms. These farmers pay little attention to market demands, and in consequence they receive much less for their crop than they would if these demands were met. "Choice" hay sells well in any market, and the supply of this grade in all kinds of hay is much smaller than the demand.

(3) The meadows on many farms are kept in hay long after the yield has fallen below the average. The practice permits the entrance of foreign grasses and weeds, and tends to lower the grade of the whole product. The prevailing practice in many sections of delaying the harvest until the plant has reached the "second bloom," instead of cutting at the "first bloom," as required by the city consumer, also tends to put the hay in a lower grade. Improper curing and exposure to the weather before baling cause part of the hay to be damaged, and the baling of this hay with that in good condition causes the city buyers to regard with suspicion all bales having even a slight appearance of being spoiled.

(4) The methods of baling used, depend on both local weather conditions and conditions at the market. In general, however, the bales which meet with most favor are those composed of many "charges" of clean hay, tightly pressed, and well wired. Loose bales with ragged edges break open, and inspectors are frequently obliged to class such bales as "loose hay."

(5) The type of baling press selected depends largely on the amount of baling which is anticipated. The two-horse continuous-travel type finds a wider use than any of the others, owing both to economy in operation, and to neatness of the bales pressed.

(6) The size of the baling press depends, of course, on the size of the bales demanded in the markets to which the farmer expects to send his hay.

(7) "Tag weight," because of its uncertainty, has come to be regarded with little favor in the markets. The weight usually accepted is that taken officially at the time of delivery.

(8) The loading of cars should be carefully done, under the supervision of competent inspectors, as the hay is graded by cars in most markets, and "sandwiched" or mixed cars frequently cause misunderstandings between shipper and receiver.

(9) In order to make the inspection of hay as uniform as possible, various markets have adopted standard grades, and this system is used to-day in 24 of the leading hay markets of the United States. At the markets' terminal warehouses, private warehouses, or holding-yards, are used for storing the hay until it is sold, and in each market the methods of weighing are standardized so that one system of inspection can be used. The organizations of men interested in the hay business have brought about the present methods, and by a clear understanding of the standard requirements of the markets to which his hay will be shipped, the farmer will receive a much more satisfactory return than by shipping hay baled in a slipshod fashion, or in any manner not desired by the buyers in the various markets.

Judge—"You are charged with breaking a chair over this man's head."
Prisoner—"I didn't mean to break the chair, your worship."

Imported and Canadian Bred Shires

BY AUCTION

PORTER BROS. OF APPLEBY, ONT., will hold, at their farm, their first Annual Sale of Imported and Canadian bred Shire Horses, Stallions, Mares and Fillies, on

THURSDAY, DECEMBER 5TH, 1912

16 head, including the noted sire Baron Kitchener (356) = 6031 =.

Among them are first and second prize winners and champions at Toronto, Ottawa, London and Guelph. The choicest lot of big quality Shires ever sold by auction in Canada.

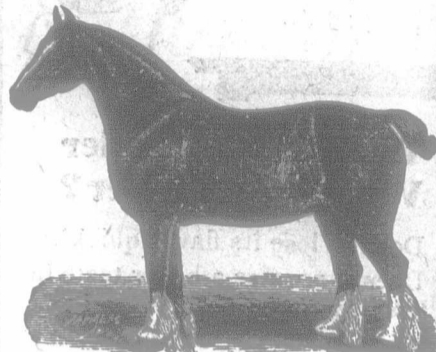
There will also be sold 3 Short-horn bulls and several Hampshire pigs.

Conveyances will meet morning trains at Tansley, G.T.R., which connects with trains from Hamilton, Guelph, Toronto and north of Georgetown. Also at Bronte, G.T.R., at 12 o'clock noon.

TERMS CASH, OR 6 MONTHS WITH 6%.

GEO. ANDREWS Auctioneer MILTON, ONTARIO

Catalogues on application. PORTER BROS, Appleby P. O., Ontario.



IMP. CLYDESDALES

AND PERCHERONS.

I have 65 head of Clydesdales and Percherons in my barns to choose from, a great many of them are prizewinners in Canada, Scotland and France, and other extra show horses that have not yet been shown. I have never had so many good horses at one time before. Intending purchasers would do well to see through my barns before buying. My horses are all for sale and at right prices.

MARKHAM P. O., G. T. R., and LOCUST HILL, C. P. R., three miles. Long-distance Phone. T. H. HASSARD

Union Stock Yards of Toronto, Ltd.

HORSE DEPARTMENT

Auction Sale Every Wednesday Private Sales Every Day

Railroad Loading Facilities at Barn Doors

W. W. SUTHERLAND, In Office. J. H. ASHCRAFT, JR., Manager.



To Prospective Stallion and Mare Buyers

We have at our barns the largest and finest bunch of imported approved Percheron stallions and mares ever brought into this country. Our stallions range in age from two-year-olds to six, and are all the large, drafty, heavy-boned type and good movers.

Our mares, of which only a few are left, range from two to five years old, and are all in foal.

As we buy for cash direct from the small French farmer, we are able to sell at prices that will save any buyer from \$200 to \$500 on a stallion, and give more quality and breeding.

To all parties contemplating buying a stallion, we feel confident that it will be to their advantage to inspect our stock, as we sell below competition.

Correspondence invited from all interested parties.

R. HAMILTON & SON, SIMCOE, ONTARIO

Just Arrived—Clydesdale Stallions and Fillies

Bigger and better than ever before is our 1912 importation just arrived. Stallions with size, character, quality and breeding. Fillies of high-class breeding and quality for show or breeding purposes. Come and see them. Terms and prices right. JOHN A. BOAG & SON, Queensville P.O. and Sta., on Toronto to Sutton Electric Line L.-D. Phone.

PERCHERON STALLIONS—Our 1912 importation of Percheron stallions supply the trade for ideal draft character, flashy quality of underpinning, stylish tops and faultless moving. Let us know your wants. Any terms arranged.

EAID & PORTER, Simcoe, Ontario

IMPORTED CLYDESDALES
A few choice young stallions always on hand and for sale. Frequent importations maintain a high standard. Prices and terms to suit.

BARBER BROS., Gatineau Pt., Que., near Ottawa.

MT. VICTORIA STOCK FARM, Hudson Heights, P. Q.
We have some very choice young stock for sale, both sexes. Clydesdales and Backneys from champion sires and well bred dams, at reasonable prices.
T. B. MACAULAY, Prop. E. WATSON, Mgr

Orchard-Grove Herefords I have lately made a big importation of the leading herds of Illinois. In my herd you now have 25 Bulls and Mature Cows from a range of Heifers and Cows. High-class show and breeding stock a specialty.
L. O. CLIFFORD, Oshawa, Ontario, G.T.R. and C.N.R.

THE MAPLES HEREFORDS Never before have had so about one year old, including the 1st-prize calf herd at Toronto. We can also spare a few older ones. We breed our winners and win with our breeding. Inspection invited. Write us your wants. MRS. W. H. HUNTER & SONS, THE MAPLES, ONTARIO

Lure Ja

The first cure for...
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Have some \$...
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A. W. SMIT...
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Present of...
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J. T. GIBBS

OAKLAN

Herd head...
in his prime...
straight lined...
the choice bu...
bulls, one year...
JOHN ELDE

SPRING

Herd head...
Ringleader...
The female...
Young stock...
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KYLE BR

Fletcher

Short-horn...
headed by...
Royal Bruce...
Choice young...
GEO. D. FL

Shorth

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Lump Jaw



The first remedy to cure Lump Jaw was Fleming's Lump Jaw Cure and it remains today the standard treatment, with years of success back of it, known to be a cure and guaranteed to cure. Don't experiment with substitutes or imitations. Use it, no matter how old or bad the case or what else you may have tried—your money back if Fleming's Lump Jaw Cure ever fails. Our fair plan of selling, together with exhaustive information on Lump Jaw and its treatment, is given in Fleming's Vest-Pocket Veterinary Adviser. Most complete veterinary book ever printed to be given away. Durable, bound, indexed and illustrated. Write us for a free copy.

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

STUMP EXTRACTOR

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

WRITE US FOR DETAILS.

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

1884 Maple Lodge Stock Farm 1912

Have some **SHORTHORN HEIFERS** two years old from cows giving 30 pounds milk per day, and in calf to my stock bull, Senator Lavender. Grand young **LEICESTERS** from imp. Wooler of Sandy Knowe, champion at Toronto, and imp. Royal Connaught.

A. W. SMITH, MAPLE LODGE, ONTARIO
Lucan Crossing, G. T. Ry., one mile.

"The Manor" Scotch Shorthorns

Present offering: Three choice yearling bulls. Young cows in calf. Yearling heifers; Clippers, Minns, Wimple, Julius, etc. Inspection solicited. Prices moderate. Phone connection.

J. T. GIBSON, DENFIELD, ONTARIO

OAKLAND 50 SHORTHORNS

Herd headed for sale, Scotch Grey = 72092=, still in his prime, a beautiful roan and a grand handler, straight lined, quiet, active and allright, and one of the choice bulls in Ontario; also five other good bulls, one year and over.

JOHN ELDER & SON, HENSALL, ONTARIO

SPRING VALLEY SHORTHORNS

Herd headed by the two imported bulls, Newton Ringleader, =73783=, and Scottish Pride, =36106=. The females are of the best Scottish families. Young stock of both sexes for sale at reasonable prices. Telephone connection.

KYLE BROS., - - Ayr, Ontario

Fletcher's Shorthorns

Our herd of Pure Scotch Shorthorns (Imp.) or direct from imported stock, is headed by the grandly-bred Bruce Mayflower bull, Royal Bruce (Imp.) = 55038 = (89900) 373853. Choice young stock for sale.

GEO. D. FLETCHER, R.R. No. 2, Erin, Ont.

Shorthorns for Sale—Threestrong-boned large cows with calves by side; choicest breeding and heavy milking strain.

STEWART M. GRAHAM, Port Perry, Ont.

SHORTHORNS and **SWINE**—Have some choice young bulls for sale, also cows and heifers of show material, some with calves at foot. Also choice Yorkshire and Berkshire sows. **ISRAEL GROFF, Elmira, Ontario.**

SHORTHORNS

Nine bulls and a number of heifers for sale at very reasonable prices.

Robert Nichol & Sons, Hagersville, Ont.

"Pat," said the vicar, "I want you to go to the railway station and find out what time the next train leaves for London."

"Yes, sorr."

After an absence of two hours he returned. "What a time you've been!" exclaimed the vicar.

"Well, ye see, yer honor," replied Pat, "I had to wait. I couldn't trust them station fellows; they say anything, so I stuck tight an' seed the train start wid me own eyes!"

Jones—"How does your son like his position at the bank?"

Jones—"Oh, he's forged his way to the front."

QUESTIONS AND ANSWERS. Miscellaneous.

A HEIFER IN MILK.

Is a two-year-old giving milk classed as a heifer? R. McD.

Ans.—She may be properly so styled. Many exhibitions provide classes for heifers in milk.

ROT-INFECTED POTATOES.

Would you please give us your advice on whether the potatoes are fit for family use owing to the rot? Some of ours have a little rot on them, but the rest of the potato is quite sound. We cut the rot off, and boil the rest for family use. Do you think there is any danger of disease from this? We also boil the peelings for the hogs. A. A.

Ans.—Some of ours are affected the same way, and we are using the sound portions. The doctor has not been called to date of writing.

ONIONS.

I sowed a patch of onions in the spring, and part of them did not get weeded out till late, so the bulbs are small. If left in the ground, will they come up in the spring for a crop, or will they winter-kill, or will it be better to harvest them and replant in the spring? J. E. N.

Ans. It is now getting very late for handling the crop. It would have been better to pull them and dry them, and use as Dutch sets next spring. They will in all probability spoil if left out over winter.

WIDOW'S RIGHTS.

A man owns a farm of 100 acres, slightly incumbered, also implements, and some stock. He marries in Ontario. They have no family. He has brothers and sisters living. If he dies without a will, what portion can his wife claim of the farm; also of the stock, implements, and loose money? Ontario. SUBSCRIBER.

Ans.—\$1,000 and interest thereon from the date of her husband's death, at 4 per cent. per annum, until payment; and also one-half of the residue of his real and personal property remaining after payment of the \$1,000 and interest, and all charges on the estate, debts, funeral expenses, and expenses of administration.

SALE OF HORSE.

A sold B a horse, to be delivered in one month. B gave A one dollar on horse. In five days, B wrote A, saying he had no room in his stable, and would not take the horse.

1. Does the horse belong to B?
2. If so, how would A make B take the horse? SUBSCRIBER. Ontario.

Ans.—1. Yes.
2. The date when the balance of the price was to be paid is not stated. We may say, however, that upon default being made in respect of the matter of payment, A would be in a position to sue B for such balance, and would have a lien upon the horse—if still in his, A's, possession—until the same has been fully paid for.

WOODEN SILO.

I am a carpenter and builder; have 14 acres near the city; keep three or four cows, etc.; sell some cream, etc. I have three acres White Flint corn. I cannot get it husked; it is dry; just a medium crop. I can build a silo with inch dressed matched stuff, 8 feet square, 25 feet high, 2 x 4 in. girts, 3 feet apart, for about \$30. I raise corn every year.

1. Will it pay me to do so?
2. The corn being dry, does it need moistening?
3. If so, why?
4. Would such a silo answer all purposes on a small farm? B. B.

Ans.—Under these circumstances, we would not advise the building of a silo. The cost per ton of capacity, and the probable percentage of deterioration, would be greater than with a larger silo. Feed your corn as it is, either with or without cutting. If cut from time to time when dry, it will keep all right and make good feed.

OIL CAKE MEAL

J. & J. LIVINGSTON BRAND
Put Up in 100 - pound Bags

IMPROVES THE STOCK IN EVERY WAY.
FEED WITH YOUR SILAGE OR ROOTS.

If your dealer cannot supply you, write us:

THE DOMINION LINSEED OIL CO., LIMITED

MANUFACTURERS,

BADEN, ONTARIO,

NOW FOR THE INTERNATIONAL
Greatest and Best

LIVE STOCK SHOW

of the year

November 30th to December 7th, 1912
At Union Stock Yards, CHICAGO

Many new improvements. New features. Thirty National Conventions. Daily sales of all breeds, etc., etc. A season of learning, entertainment. Brilliant evening shows, and

A TRIP TO CHICAGO

LOWEST RATES ON ALL RAILROADS



TRADEMARK

The National Stock Food Company
GENTLEMEN—I am so pleased to write you, with reference to a very bad colic case I had. Although the horse was almost dead and hopeless I drenched him with two bottles of your "ANTI-COLIC"; he made a fine and quick recovery. I obtained as good results as this one with any of your other preparations I used. Yours truly, O. Yeh.

The National Stock Food Co., whose products are famed all over the Dominion, always carry a stock of pure Veterinarian medicines. Our expert Veterinarians are at your disposal for free consultation. Just write and give all details possible on the disease your animal is affected with, when you will receive the answer strictly free of charge. Write at once.

The National Stock Food Company, Ottawa, Ont.
NOTE.—For shanty horses, special medicines. Write before you go.

SHORTHORNS

Have now a choice lot of young bulls to offer; also with something nice in heifers. Catalogue of herd and list of young animals on application.

H. CARGILL & SON, Freeprieston, Cargill, Ont., Bruce Co.
JOHN CLANCY, Manager



I Have SHORTHORN Bulls and Heifers, SHROPSHIRE and COTSWOLD Rams and Ewes, CLYDESDALE Fillies and Colts

that are as good as I have ever had, and that I will sell for prices within the reach of all. We have been in the business 75 years, always in the front rank, and propose to keep that position. You cannot afford to buy without writing us for prices. **ROBERT MILLER, STOUFFVILLE, ONTARIO**

Scotch Shorthorns

—Present offering: Three young bulls of serviceable age, from imp. sires and dams. A few very good bull calves. Cows and heifers bred or with calves at foot.

Burlington Jct. Sta., G. T. R.

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

1861 Irvine-Side Shorthorns 1912

Offering for sale young bulls and heifers that are the result of over 50 years successful breeding. Pure Scotch, and carrying the best blood of the breed. Few good Oxford Down rams. **John Watt & Son, Salem P. O., Ont. Elora Station, G. T. and C. P. R.**

SALEM SHORTHORNS

Headed by Gainford Marquis, undefeated bull of three countries. See our show herd at the leading fairs, starting at Winnipeg. **J. A. WATT, SALEM, ELORA STA., G. T. and C. P. R.**

Shorthorns

of breeding and quality—Our offering this year in young bulls and heifers, out of Scotch cow, and sired by our great Mildred Royal, are put up on show lines, and strictly first-class.

GEO. GIER & SON, Grand Valley, Ont., P. O. and Sta.

SCOTCH SHORTHORNS

For sale:—One good imported yearling bull, a Marr Flora, recently imported; 16 bull calves 8 to 14 months old; also 30 cows and heifers in calf. Everything by high-class imported sires. Some Toronto and London winners among these. Farm 1/4 mile from Burlington Junction Station. **MITCHELL BROS., Burlington, Ont.**

SCOTCH SHORTHORNS

At prices that defy competition. I am offering a big, choice and royally-bred selection of females from calves up. Also a few right good herd headers, including my great stock bull, Lord Lavender. **A. J. HOWDEN, COLUMBUS P. O., ONT. Brooklin Sta., G. T. R., Myrtle Sta., C. P. R.**

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Bog Spavin

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, Curb, Capped Hock, etc. It is neither a liniment nor a simple blister, but a remedy unlike any other—doesn't irritate and can't be misapplied. 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 need to have before ordering or buying any kind of a remedy. Mailed free if you write.

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

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Toronto Steel Tanks

The material is the best Apollo galvanized steel. The galvanizing is perfect. It won't rust.

The gauges are heavy enough for intended use. Solder is guaranteed. Don't buy cheap tanks—they soon rust and leak.

We employ good mechanics—our men know their trade—consequently turn out tanks that last a lifetime.

You probably need another tank, so send for an interesting descriptive pamphlet and ask for our estimates on your requirements. Address the office nearest to you.

THE ONTARIO WIND ENGINE & PUMP CO., LTD.
Winnipeg TORONTO Calgary

City View Ayrshires—Bonnie's Messing or 2702 at head of herd, both dam and gr. dam R. O. P. cows. One yearling bull and calves of either sex. Will sell a few cows. **JAMES BEGG, R. R. No. 1 St. Thomas**
One and a half miles from all stations.

A Scotsman went to a solicitor, laid before him a question, and asked him if he could undertake the case.

"Certainly," replied the solicitor, "I will readily undertake the case. We're sure to win."

"So ye really think it's a good case?"

"Most decidedly, my dear sir. I am prepared to guarantee that you will secure a favorable verdict."

"Ah, weel, I'm much obliged tae ye, but I dinna think I'll go tae law this time, for, ye see, the case I've laid before ye is my opponent's."

"What do I want with a wife?" snorted Bachelor Bockwedder, on reading an old maid's reasons for not wanting a husband. "I have a game rooster that is vain about his fine feathers, a goat that chews the rag, an aeroplane that gets me up in the air, and an automobile that keeps me all the time broke."

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QUESTIONS AND ANSWERS. Miscellaneous.

TITLE TO LAND.

A, and B, his wife, own a piece of land. B has always held the deed, but gave A full control of the business up to three years ago, when they separated. B now wants to sell the land. Can she do so, and give a good title, without A's consent, she, B, not knowing where A is living.

YORK COUNTY, Ontario.

Ans.—No.

SOWING TIMOTHY.

I have a field which I seeded to red clover last spring. It is a good catch, and I would like to have seeded it with timothy, but neglected it. Do you think that I would get a catch by seeding it this fall or next spring, and which would you advise?

J. B.

Ans.—The timothy might have been sown in September. It is too late now to sow it this fall. If sown next spring it would be of no use in next year's crop, and the red clover might get so thick as to practically smother it out. Of course, it might come on for the following season, but it would likely be more satisfactory to take off the clover and re-seed with another nurse crop.

CLASS FOR HEIFER.

There has been a dispute at the Agricultural Show over entering a herd of cattle. If a two-year-old heifer is milking, which should she be entered for, a milch cow, or a two-year-old heifer?

T. I.

Ans.—A two-year-old heifer is nothing else than a two-year-old. It depends entirely, however, upon the wording of the prize list of the particular show in question. Some shows have a class for two-year-olds in milk and two-year-olds not in milk. If the prize list read two-year-old heifer, and said nothing about the fact of their being in milk or not, and the heifer was within the age limit, she should be eligible for the two-year-old class.

PICKLE PUMP.

In the October 17th issue of your paper, you gave a method of curing meat in which a pickle pump was used. We would esteem it a favor if you would inform us where we could purchase such a pump.

FARMER.

Ans.—The article referred to, as was stated therein, was taken from a Scottish authority. No doubt you could obtain a pickle pump from some of our large hardware or manufacturers. We can only refer you to our advertising columns. The main points of the article were the composition of the pickle, and the method of pickling. The main thing is to get the pickle over the meat as suggested, and into the pockets in the shoulder. This might be accomplished to a degree by pouring it. Of course, for the inner cavities, a pump would be more satisfactory.

CEMENT TANK—MANURE ON RASPBERRIES.

1. I built a cement water-tank, above ground, 12 x 7 ft. 7 in., inside (round). How many barrels will it hold?
2. It was built of rather coarse gravel. I didn't plaster it, but painted four or five times with thick cement and water, yet it leaks a little in odd places, just enough to wet the wall for a foot or two below leak. I'm afraid the frost acting on that water in the wall will burst it. What do you think? Is there anything better I can do than repeat the painting operation?
3. Was I wise or not in putting a forkful of manure around (close to) raspberry plants, set this fall?

W. J.

Ans.—1. Approximately, 85 barrels.

2. About all you can do is to put on more of the cement. There may be a little tendency for the frost to crack the wall of the tank, but it is not likely to be very serious. If you would get a cement plaster on, it would help.

3. The manure will do no harm if it is not piled up too close to the stalk of the growing raspberry bushes.

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is the only convenient form in which Pure Cane Molasses can be fed to animals. The meal is dry to the touch—has an appetizing provoking odor, and is greatly relished by animals.



Caldwell's Molasses Meal is a very economical as well as a highly efficient feed. It practically costs nothing, because it takes the place of an equal amount of other feed. It also makes other feed more palatable, digestible, and hence more nourishing, and is an excellent preventive and eradicator of worms.

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Caldwell's Molasses Meal cuts general forage bills by a handsome margin. You can buy the Meal cheaper from us direct, or from your feed store than you can buy the raw molasses alone. Write for money-saving facts. Clip out coupon, mail to us, and we will send you full particulars.

LONDON FARMER'S ADVOCATE

Please send me booklet and full particulars as to cost, etc., of Molasses Meal.

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Post Office.....

Province.....

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

Ayrshires and Yorkshires—We now offer at bargain bull calves dropped in dams with good records, or their daughters either imported or home-bred. Some choice February pigs; also young pigs. **Alex. Hume & Co., Monie, Ont.**

STONEHOUSE AYRSHIRES Are coming to the front wherever shown. Look out for this at the leading exhibitions. Some choice young bulls for sale, as well as cows and heifers. **HECTOR GORDON, Howick, Quebec.**

CHERRYBANK AYRSHIRES We are offering 5 young bulls fit for service, from dams of 40 lbs. to 50 lbs. daily of 4% milk. Anything else in the herd priced reasonable. This herd won over \$1,200 prize money in 1911. **P. D. McArthur, North Georgetown, Que.**

Hillcrest Ayrshires—At head of herd is Ivanhoe of Tanglewild, a son of the champion Ayrshire cow, Primrose of Tanglewild, R. O. P. test 16,195 lbs. milk and 625.00 lbs. fat; 60 head to select from. Inspection invited. **F. H. HARRIS, Mt. Elgin, Ont.**

HOLSTEINS and YORKSHIRES Richly-bred young bulls, officially backed on both sides. Yorkshires of highest type and quality at rock-bottom prices. **R. Honey & Sons, Brickley, Ont.** "Minster Farm."

King Segis Walker The highest pedigreed sire in Canada. Average record of dam, grandams, and g. gr. dams: Butter, 28.36 lbs.; milk, 544.42 lbs.; fat, 4.24 lbs. Fee for service, \$25. This sire's get are 80 per cent. females. For sale: A grandson of King Segis and Pontiac Pet. record 37.67 lbs. butter and the world's champion; also a bull calf whose dam is a daughter of Pontiac Komdyke, and just completed a record of 722 lbs. in seven days. **A. A. FAREWELL, OSHAWA, ONTARIO**

Silver Creek Holsteins We are now offering about a dozen yearling heifers and three young bulls. They are all of superior type, and officially backed on both sides. King Fayne Segis Clothilde, whose seven nearest dams have seven F. O., O.N.T., Woodstock Station. 'Phone connection.

TEN BULLS FOR SALE—PRICES LOW Would you like your next bull to be from the same sire as the heifer that holds the world's record for yearly work, and the same sire as the Champion Cow of Canada in the seven day work, and the same sire as the Champion four-year-old of Canada in the thirty day work? We have bulls heifers bred to our junior herd bull whose dam has records of over 27 lbs. We have also some extra choice bulls bred to our junior herd bull whose dam has a record of 34.60 lbs. butter in seven days and 111 lbs. milk a day. **Yorksires of all ages. D. C. FLATT & SON, R. R. No. 2, Hamilton, Ont.**

BEST RESULTS ARE OBTAINED FROM ADS. IN "ADVOCATE."

NOVEMBER

QUESTIO

H.-P. OF

1. What is power in a
2. How wo a gasoline en

Ans.—1. A of energy re pounds of w foot-pounds per energy enoug foot per sec per second.

2. To arri gasoline en used: Make the face of lever, in fee point of scal pulley; R. of the shaft used in form power stres weight, less

THRESI

The council in the Provin ly warned of bridge, but f said bridge i A thresher nary outfit, both drawn get to some the said mur ing, he has there is no to their plac

1. Is the in any way threshing o bridge, ther bridge, or a said bridge
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Ans.—1. E "threshing o in weight.

2. Before with a high levied, the must lay d of sufficient tect the flo further and be subject you to The tario Statu

CROPPI

1. What spring to seaweed thi right?
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3. Is th spring whe the name
4. What in a bull's his head?
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Ans.—1. suited to c

2. If the cultivation spring whe toes.
3. Yes, to the sam ripen if so wheat is through t autumn.
4. Tie narrow str and chains neck, and struments with a h to. It p painful to
5. Yes, age of th thereafter.

QUESTIONS AND ANSWERS.
Miscellaneous.

H.-P. OF GASOLINE ENGINE.

1. What is the strength of a horse-power in a gasoline engine?
2. How would you test the power of a gasoline engine? J. F.

Ans.—1. A horse-power is the amount of energy required to do 550 foot-pounds of work per second, or 33,000 foot-pounds per minute. That is, it is energy enough to raise 550 pounds one foot per second, or 1 pound 550 feet per second.

2. To arrive at the horse-power of a gasoline engine, the following rule is used: Make D equal the diameter of the face of the pulley; B, the length of lever, in feet, from center of shaft to point of scale suspension; A, the radius of pulley; R, the number of revolutions of the shaft per minute. The weight used in formula must be net weight of power stress, or the gross observed weight, less the weight of the lever.

THRESHER AND BRIDGE.

The council of a certain municipality, in the Province of Ontario, was repeatedly warned of the unsafe condition of a bridge, but failed to do anything to have said bridge made safe for public travel. A thresher comes along with an ordinary outfit, an engine and separator, both drawn by horses, and in order to get to some of the ratepayers' places of the said municipality to do their threshing, he has to cross said bridge, as there is no other way that he can get to their places.

1. Is the council of said municipality in any way responsible for damage to threshing outfit while crossing said bridge, there being no notice at the bridge, or any other place, to say that said bridge was not safe?

2. Does the law in Ontario require that threshing outfits, such as the above-mentioned, shall carry with them planks to lay down to protect bridge while passing over them? Ontario.

SUBSCRIBER.

Ans.—1. Probably they are, if the "threshing outfit" was less than 10 tons in weight.

2. Before crossing a bridge connected with a highway on which no tolls are levied, the person running the engine must lay down on such bridge, planks of sufficient width and thickness to protect the flooring or bridge-surface. For further and more definite information on the subject generally, we would refer you to The Traction Engines Act (Ontario Statutes, 1912, Chap. 53.)

CROPPING—RINGING BULL—AGE OF COW.

1. What crop would you advise in the spring to put on sod turned down on seaweed this fall? Would corn be all right?

2. Would it be advisable to put spring wheat on potato ground?

3. Is there any difference between spring wheat and fall wheat, other than the name itself?

4. What is the best way to put a ring in a bull's nose, and safest way to hold his head?

5. Can the age of a cow be told by the number of rings on its horns? E. C.

Ans.—1. If the soil and climate are suited to corn, it does very well on sod.

2. If the land is in a good state of cultivation and a high state of fertility, spring wheat does fairly well after potatoes.

3. Yes. While they may both belong to the same genus, fall wheat would not ripen if sown in the spring, and spring wheat is not hardy enough to live through the winter if sown in the autumn.

4. Tie him fast to both sides of a narrow stall by means of strong ropes and chains attached to his head and neck, and use one of the patented instruments to make the hole. Sealing with a hot iron is sometimes resorted to. It prevents bleeding, but is very painful to the bull.

5. Yes. A cow gets a ring at the age of three years, and one each year thereafter.

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Lakeview Holsteins



Offer bull born February, 1912, sired by our son, Colantha Johanna Lad, and out of a heifer that made over 13 lbs. butter at two years old. She is a daughter of Count Hengerveld Jayne De Kol, and out of a 23.51-lb. cow with a 23-lb. dam. The seven nearest dams of this young bull average 23.32 lbs. of butter in seven days. Write at once for extended pedigree and price. E. F. Osler, Bronte, Ont.

FAIRVIEW FARM'S HERD - OFFERS sons of Pontiac Koradyke 25983, the greatest sire that ever lived, and the only bull that ever sired 12 daughters that have made 7-day records above 30 pounds each. Do you want your next bull to be a brother to such cows as Pontiac Lady Koradyke (38.02), Pontiac Pet (37.67), Pontiac Clothilde De Kol 2nd (37.21), Sadie Vale Koradyke (36.20), and eight others above 30 pounds? If you do, write me for price on a son of Pontiac Koradyke. I also have sons of Rag Apple Koradyke and Sir Johanna Colantha Gladi. E. H. DOLLAR, HEUVELTON, NEW YORK. Near Prescott.

Avondale Holstein Cattle AND DORSET HORNED SHEEP.

To make room for daughters of Prince Hengerveld Pietje, we are offering a few females bred to the greatest bred bulls in Canada, and at rock-bottom prices. Also a few extra good yearling rams. Address: H. LORNE LOGAN, MANAGER. A. C. Hardy, Brockville, Ont.

Maple Hill Holstein-Friesians Special offering: Bulls from one to fifteen months old. The growthy kind that will give good service. One from a son of Evergreen March, and all from Record of Merit dams. Write for particulars. Bell Telephone. G. W. CLEMONS, ST. GEORGE, ONTARIO

HOLSTEINS AND YORKSHIRES Last year our Holsteins, out of 12 entries, won 10 firsts and 2 seconds. Our stock bull, King Peter Teake, shown three times and won three firsts. We have 35 head, any of them are for sale. Some choice young sows. A. Watson & Sons, R. R. No. 1, St. Thomas, Ont. L.-D. 'Phone.

Brampton Jerseys Bulls fit for service are getting scarce. Just a few left. Yearling heifers in calf are in great demand; 6 for sale; 6 now being bred. Brampton Stockwell the sire. A few good cows and some calves for sale. Production and quality. B. H. BULL & SON, Brampton, Ont.

HOLSTEINS



We are now offering some young bulls from 4 to 10 months old, got by the great sire, Ida's Paul Veeman, which has daughters with 20 lbs. of butter in 7 days as 2-year-olds; also some cows and heifers freshening in Oct., sired by Veeman. Write or come and visit the herd for particulars.

H. G. HOLBY, Belmont, Ont.



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

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Write us to-day for our proposition, telling you how any good dairyman may own a registered Holstein bull from a Record-of-Performance cow without investing a cent for him.

MONRO & LAWLESS, "Elmdale Farm" Theroit, Ontario

The Maples Holstein Herd

offers a splendid lot of bull calves, all sired by Prince Aggie Mechthilde and all from record of merit dams. For pedigrees and prices write

WALBURN RIVERS, Falden, Ontario

Maple Grove Holsteins Herd headed by King Lyons Hengerveld, whose 17 near female ancestors have butter records from 30.50 to 34.75 lbs. in 7 days, including world's records for 7 and 30 days. H. BOLLETT, R. R. No. 5, Tavistock, Ont.

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

BALAPHORENE A. J. C. G. JERSEYS Present offering: Cows from three to seven years old; calves from two to ten months old; either sex. JOSEPH SHABROOK, HAVELOCK, ONT

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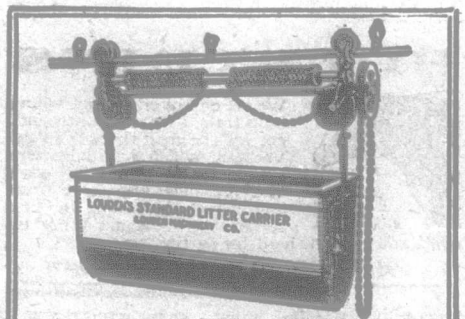
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11
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No postage or duty to pay. Cattle sizes with name and address and numbers; sheep or hog size, name and numbers. Get your neighbors to order with you and get better rate. Circular and sample label free. F. S. JAMES, Goumerville, Ont.

Maplewood Oxfords—Shearlings and ram lambs from imported sires; twenty 2-shear ewes. Highest type. Prices easy. WM. BARNET & SONS, Living Springs P. O., Ont.

Oxford Downs—Choice reg. ram and ewe lambs, \$10 and \$12 each; also a few yearling rams and ewes at close prices. W. A. BRYANT, Cairngorm, Ont.

Springbank Oxfords—Fifteen ewe lambs from imported sires; twenty 2-shear ewes. Highest type. Prices easy. WM. BARNET & SONS, Living Springs P. O., Ont.

"You must have called me late this morning, Sylvia. It was twelve o'clock when I reached the office. And I had an important appointment for ten o'clock, too."

"Why, I called you at seven-thirty, John!"

"Was the clock right?"

"Yes; I set it last night when you came home. You remember, I called downstairs when you came in and asked you what time it was, and you said it was ten-thirty. The clock in my room said one-forty-five, so I turned it back to agree with your watch, and, of course, I called you by the correct time this morning."

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that it was perfectly evident that she used SNAP, the original hand cleaner, to remove the grime of housework.

Hand cleaners by any other name do not smell as sweet. Avoid rank imitations, and remember the name



SNAP

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5¢ coupons.

GOSSIP.

CATTLE AT THE WINTER FAIR.

Beef cattle at this year's Winter Fair will compete for \$2,500 in prizes. The prize list has been supplemented by \$100 from the Dominion Shorthorn-breeders' Association; \$80 from the Canadian Hereford-breeders' Association, and \$50 from the American Aberdeen-Angus-breeders' Association, in the classes for their respective breeds. In addition to this, the Shorthorn men are offering \$50 in prizes for grade steers, sired by a Shorthorn bull, and an equal amount for grade steers sired by a Shorthorn bull and shown by amateurs. The Hereford Association will supplement all prizes won in the class for grades or crosses of any breed by animals sired by Hereford bulls, and will add \$100 to the grand champion prize if won by an animal sired by a Hereford bull. The Canadian Aberdeen-Angus-breeders' Association is offering \$100 in a special class for Aberdeen-Angus grades. In this class, the sections are for steer or heifer, two years and under three, and for steer or heifer under two years, not one and under two, as stated in the official premium list. This will allow calves to compete for prizes in the latter section. In the section of dairy cattle, the Fair Board has increased all first prizes by five dollars over last year's offering. In the sections for Shorthorns, Ayrshires, and Holsteins, the prizes have been supplemented by \$45, \$200, and \$375, respectively, by their respective breed associations. Special attention is drawn to the fact that the first prizes for Holsteins are: for cow 48 months or over, \$55; cow 36 months and under 48, \$55, and for heifer under 36 months, \$50. Other prizes are given in the official premium list. The Holstein and Ayrshire-breeders' Associations will also supplement the championships in the various classes if won by animals of their respective breeds. The prizes offered for dairy cattle total \$1,700.

MORE RECORDS BROKEN IN CONNECTION WITH THE CHICAGO STOCK SHOW.

With its \$75,000 offered in prizes, and its entries closed, the International Live-stock Exposition, which will be held on the dates of November 30 to December 7, inclusive, at the Union Stock-yards, Chicago, has broken all records in every department in regard to the number of exhibits. Every breed of cattle, sheep, swine and horses, will be represented on a much larger scale, the arrangements for the show have been better provided for, and the great Stock Show of 1912 should go down into history as the most comprehensive, the most complete, the most modern, advanced, and up-to-date of all the exhibitions, wonderful as they have been, which have preceded it. Such a statement of facts as this is positive proof of the importance of the event, and how it is regarded by the stockmen of the country. It not only offers to breeders, feeders, farmers, and others who are interested in the live-stock industry, a school of analysis, but a free and liberal education in everything that a stockman requires, and present to the sons of these men an opportunity for obtaining that information, and insight to the stockman's business so necessary, so indispensable to them in after years.

Breeders, feeders, and farmers, who are developing a business of the kind, or who have already developed one, and who have sons ready to step into their shoes when they shall have cast them off, and put upon them the slippers of ease and restfulness, owe to these young men the privilege of seeing this extraordinary Exposition, and imbibing that knowledge without which they will be sorely handicapped when they come to compete with those who have taken advantage and profited by the opportunities it affords.

Money spent in attending this show is money invested in gilt-edged security that will return interest at the rate of a hundred per cent.

Binks-Tomlin is one who suffers from liver. He has a little canter every morning before breakfast.

Winks—Yes, I know. And he has a pretty big de-canter every night after dinner.

Buy this DAIN PRESS for Heaviest Work

BUILT with particular attention to the needs of the man doing custom baling, it will stand the knocks of transportation and hard wear.

The Dain Belt Power Press has large capacity and combines many time and labor-saving devices, which makes it the most profitable hay press to operate.

One of the greatest advances in hay press construction is the Dain automatic condenser hopper.

The feature of the condenser hopper and self-feed working together increases capacity and decreases cost of operation by requiring less labor than other machines.

Pitman is I-beam steel, rigid and substan-

tial. Plunger is all iron and steel, therefore not affected by damp weather or wet hay.

Gears are large and have strong heavy teeth. Pitman is operated by twin drive gears insuring true, perfect application of power. Long shaft bearings hold shaft in perfect line and insure proper meshing of gears, which lessens friction and saves power.

Fly wheel runs smoothly. Is large and heavy so it carries plunger over heavy part of stroke. Friction clutch gives perfect control.

The Dain automatic tucker folds every charge of hay, making smooth, neat and square-ended bales.

Blocks are inserted automatically by self-feeder, and are conveniently located for operator.

Baling case is carefully constructed as it must stand terrific strain in forming bales. Heavy steel angles and plates are used re-inforced with trusses, and all liberally riveted and bolted.

For further information write us for free Circular No. M 119

John Deere Plow Co. Ltd.
Welland, Ont.



Shropshires and Cotswolds!

In SHROPSHIRE I have for sale 35 imp. shearing rams and ewes from some of England's best flocks, a lot of fine home-bred rams and ewes bred from Minton and Buttar ewes. In COTSWOLDS a lot of rams and ewes, and an extra good lot of lambs. A few of each breed fitted for showing. Order early and get a good choice. Prices very reasonable.

Claremont Station, C. P. R., three miles.
Pickering Station, G. T. R., seven miles.

John Miller, Brougham, Ont.

Belmont Shropshires and Southdowns

I have a grand lot of rams and ewes for sale, both breeds. Anyone wanting a good ram, or a few good breeding ewes, should write me at once and get the first choice.

C. Hodgson, Brantford, Ont.

Southdown Sheep

The market to-day demands quality. It pays to breed what the market wants. Can you do this more cheaply or quickly than by heading your flock with a right good ram of this most perfect of mutton breeds?

Orders taken for a few sturdy young rams for all delivery.

ROBT. McEWEN, Alloway Lodge Stock Farm
Byron, Ontario

Farnham Oxfords and Hampshires

FLOCK ESTABLISHED IN 1881.

Present offering: A lot of first-class ram lambs of both breeds, by imported champion rams. Also a number of yearling and older ewes and ewe lambs of both breeds. Prices reasonable.

Henry Arkell & Son, Arkell, Ontario.
Long-distance 'phone in house.

COTSWOLDS AND SHROPSHIRE At Toronto I won 1st on flock, champion on both ewe lambs of both breeds; strictly high-class. J. MILLER, JR., "BLAIRGOWRIE FARM," ASHBURN P. O., ONTARIO

AMERICAN SHROPSHIRE REGISTRY ASSOCIATION Only Shropshire Association recognized by U. S. Government. Largest membership of any live-stock association in the world. Life membership \$5.00. No yearly dues. Write for information. J. M. WADE, SECRETARY, LAFAYETTE, INDIANA

SHROPSHIRE For Sale—Registered ram lambs, shearing ewes. Also ewes from one to six years old. Prices very moderate. Write for particulars. JOHN HAYWARD, EASTWOOD, ONT.

The Tamworths in Canada—I have a particularly nice lot of young Tamworths just now of both sexes, from youngsters up to breeding age. If you want the best types of the breed, write me. HERBERT GERMAN, St. George, Ont. Long-distance 'phone.

MENTION "FARMER'S ADVOCATE."

Hampshire Pigs

PRESENT OFFERING—7 Sows in pig Also a number of young pigs 3 months old from imported stock. Write for prices. Long-distance 'phone.

J. H. RUTHERFORD, Box 62, Caledon East, Ont

Newcastle Tamworths and Shorthorns

Present offering: Seven boars from 6 to 10 months old; boars and sow pigs 6 weeks to 4 months; sows bred and others ready to breed, from such noted stock as Colwill's Choice, Canada's champion boar, 1901, '02, '03 and '05, and Imp. Cholderton Golden Secret. Also a few choice Shorthorn heifers in calf; beef and milk combined. Show stock a specialty. Prices right. L.-D. 'Phone. A. A. Colwill, Newcastle, Ont.

Duroc Jersey Swine

AND JERSEY CATTLE. Grand stock, either sex, constantly for sale. Price reasonable. MAC CAMPBELL & SONS, Northwood, Ontario.

ELMHURST LARGE ENGLISH BERKSHIRES

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

Registered Tamworths.

We are offering boars ready for service, sows bred and ready to breed. Young pigs all ages, from six weeks up.

W. W. GEORGE, Crampton, Ont.

Large White Yorkshires

Have a choice lot of sows in pig. Boars ready for service and young pigs of both sexes supplied not skin, at reasonable prices. All breeding stock imported, or from imported herds. Write or call on:

H. J. Davis, Woodstock, Ont.
C. P. R. and G. T. R. Long-distance 'phone.

Morrison Tamworths and SHORTHORNS

Present offering: Four dandy bull calves that will make show winners, from six to ten months old. Choice Tamworths, both sexes.

CHAS. CURRIE, Morrison, Ontario

HAMPSHIRE SWINE

Both sexes and all ages, from imported stock. Prices reasonable.

C. A. POWELL, Arva, Ontario
Four miles north of London.

Cloverdale Berkshires

Present offering: Sows bred for service, also younger stock of both sexes. Also stock boars. Prices reasonable.

C. J. LANG, Hampton, Ont.

This Will Stop Your Cough in a Hurry.

Save \$2 by Making This Cough Syrup at Home.

This recipe makes 16 ounces of better cough syrup than you could buy ready made for \$2.50. A few doses usually conquer the most obstinate cough—stops even whooping cough quickly. Simple as it is, no better remedy can be had at any price.

Mix two cups of granulated sugar with one cup of warm water, and stir for 2 minutes. Put 2½ ounces of Pinex (fifty cents' worth) in a 16-ounce bottle; then add the sugar Syrup. It has a pleasant taste and lasts a family a long time. Take a teaspoonful every one, two or three hours.

You can feel this take hold of a cough in a way that means business. Has a good tonic effect, braces up the appetite, and is slightly laxative, too, which is helpful. A handy remedy for hoarseness, croup, bronchitis, asthma, and all throat and lung troubles.

The effect of pine on the membranes is well known. Pinex is the most valuable concentrated compound of Norwegian white pine extract, and is rich in guaiacol and all the natural healing pine elements. Other preparations will not work in this formula.

This Pinex and Sugar Syrup recipe has attained great popularity throughout the United States and Canada. It has often been imitated, though never successfully.

A guaranty of absolute satisfaction, or money promptly refunded, goes with this recipe. Your druggist has Pinex, or will get it for you. If not, send to the Pinex Co., Toronto, Ont.

JERSEYS

HAVE BEEN PROVED BEST.

BUY a good Jersey, and you don't have to experiment. Jersey history is made up of facts—not theories. Whether you sell milk or butter, or both, you'll get a higher percentage of profit out of Jerseys than you can get out of any other breed for the same feeding cost.

In the great dairy test at the Columbian Exposition, Chicago, herds of thoroughbred Jerseys, Guernseys and Shorthorns competing (the Holstein breeders declining to enter), the Jersey herd produced the most milk, most butter and most cheese, and at the lowest cost per pound.

At the St. Louis Exposition, in competition with Holsteins, Shorthorns and Brown Swiss (Guernsey breeders declining to enter), the Jerseys were proved to be the most economical producers of butter, butter-fat and milk.

Look into the matter. The more you investigate, the more Jerseys you'll buy. Booklet of facts on request.

Canadian Jersey Cattle Club
R. REID, Sec'y., Berlin, Ont.

Tamworths
FOR SALE

Two young sows 10 months old. One due in two months, the other later. Out of best imported stock. Two boars 10 months old, for service at once. Sired by Maplehurst Sunbeam.

For prices apply:
DUNCAN MACVANNEL
St. Mary's, Ontario



Lump Rock Salt, \$10.00 for ton lots. E. O. B. Toronto
Toronto Salt Works, 128 Adelaide St. E.
G. J. CLIFF, MANAGER, Toronto, Ont.

SHORTHORNS and OXFORDS
For sale, at Greenock farm, Elgin Co., Shorthorn bull 15 months old, Oxford-Down ram and ewe lambs. Reasonable. N. A. McFARLANE, Dutton, Ont.

AS USUAL.
Market Report.—Cutlery sharp. Aviation supplies going up. Molasses sluggish. Stoves warming up. Rubber tires much inflated. Limburger remains strong. Dynamite opened up actively. Indications are that the coming year will be one of unequalled prosperity unless a panic or something else prevents.

THE SPICE OF LIFE.

SOME ASSURANCE.

Freshest girl I know works in a quick-lunch room.

"I'd like a nice peach," I said to her the other noon.

"Well, you don't need to look any farther," she replied. "Everybody says I'm the swellest thing in the block."

ANOTHER FOOL QUESTION.

The funeral procession was moving along the village street when Uncle Abe Burse stepped out of a store. He hadn't heard the news.

"Sho," said Uncle Abe Burse, "who they buryin' to-day?"

"Pore ole Tite Harrison," said the storekeeper.

"Sho," said Uncle Abe Burse. "Tite Harrison, hey? Is Tite dead?"

"You don't think we're rehearsin' with him, do you?" snapped the storekeeper.

A BLESSING.

The following card of thanks recently appeared in a Kansas paper:

"I wish to thank the city authorities for quarantining my family and me for three weeks recently because one of them had the smallpox. During that time my wife caught up with her sewing; we had three square meals a day, as no one came in and she was not permitted to leave; we enjoyed three weeks of good nights' sleep; and best of all, a cousin with four children had arranged to visit us, saw the smallpox sign on the door, and left town so scared she will never come back again. So, for these and other blessings, we are very thankful for the quarantine."

TOO LARGE.

Jones had passed a weary night. He was English, and travelling abroad. It was not until 7.30 o'clock that he fell into his first really comfortable doze. Bang! Bang! He thought that the Germans were upon him. But he awoke to find that it was only the "hoots" rapping at his door.

"Well, what is it?" he grumbled.

"A telegram, sir," replied the boots, in breathless tones. "Will you open the door, sir?"

"Certainly not," exclaimed Jones, crossly. "Slip it under the door, my boy."

"I can't do that, sir," replied the boots, anxiously. "It's on a tray!"

BRAIN STORMS.

Sign on a Long Island store: "Boats and clams to let."

Epitaph on a butcher's tombstone in New Hampshire: "Meat me in heaven."

Extract from a letter of a Fall River merchant: "Thanking you in advance for past favors."

Card displayed in a Charlestown lodging-house: "Steam-heated rooms and meals."

Spoonerism (rather a freak of the tongue than of the mind): "The school-wark is the bulhouse of civilization."

Bit from country paper: "He was unmarried, and, so far as known, there was no reason why he should want to die."

Choice sample of editing in a woman's journal: "Alfonso XIII. was the son of Alfonso XII., who died five months before he was born at the age of twenty-eight."

CYNICISMS.

More people can sing than ought to.

Why is it that as soon as one man begins paying a woman alimony, all the rest begin paying her attentions?

Many a man tries to fool himself into believing it is his digestion, when, as a matter of fact, it is his conscience.

After the honeymoon a woman begins to economize on sachet and scented soap, and a man to economize on shaves and kisses.

Success in the love game depends on a woman's ability to appear indifferent when she is in love, and on a man's ability to appear in love when he is indifferent.

A woman never can understand that wistful look that comes into her husband's face when she tries to tell him about the man she should have married—and didn't.

TAKE A CUP OF

BOVRIL

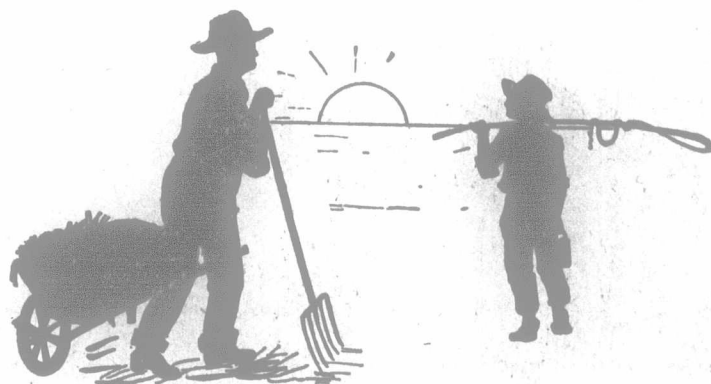
DAILY THROUGH THE FALL AND WINTER

It will tone up your system.

It will build flesh.

It will create a reserve fund of Energy.

6-11-12



"Hello, Tommy! Chores done already?"
"Yep! Aint you seen our new Litter Carrier?
It's a cinch—You should write to
Dillon's for their book—same as Dad did."

You can if you work hard enough, and if you have the time and patience, keep stables perfectly clean with the help of fork, broom and wheel barrow.

But those were ways of twenty years ago—before labor was so high and hard to get.

Stable Cleaning by the Dillon Method can be cut down to less than half the time, and a quarter the labor formerly required.

Your man's time is valuable—then cut down the time he spends cleaning the stables.

Your stock is valuable—then give them cleaner and healthier surroundings.

DILLON'S Litter Carrier

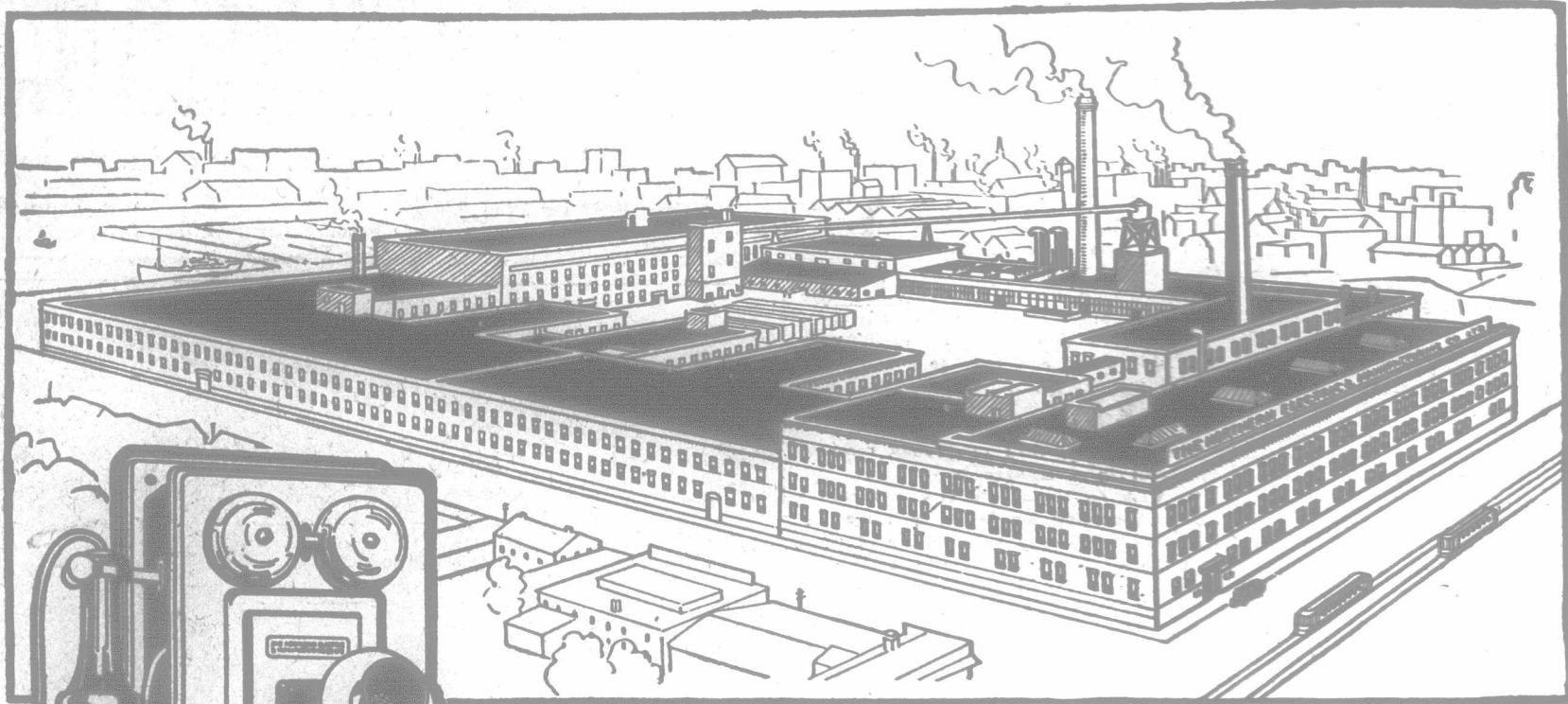
Figure it out for yourself.
Get our free book.

Dillon's sell direct to the Farmer. There are no Agents and no Agents' profits. The price is the same to all, and lower than you would expect for such substantial and well-built equipment. **DILLON'S BOOK ON CLEAN STABLES** gives you an exact idea of what you can accomplish for a small outlay. Write for a free copy.

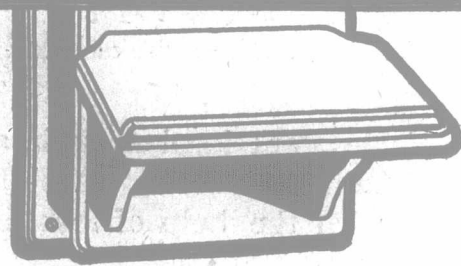
R. DILLON & SON
OSHAWA, ONT.



BEST RESULTS ARE OBTAINED FROM ADS. IN "ADVOCATE."



This is the make of instrument that is on the wall of nine out of every ten telephone users in Canada.



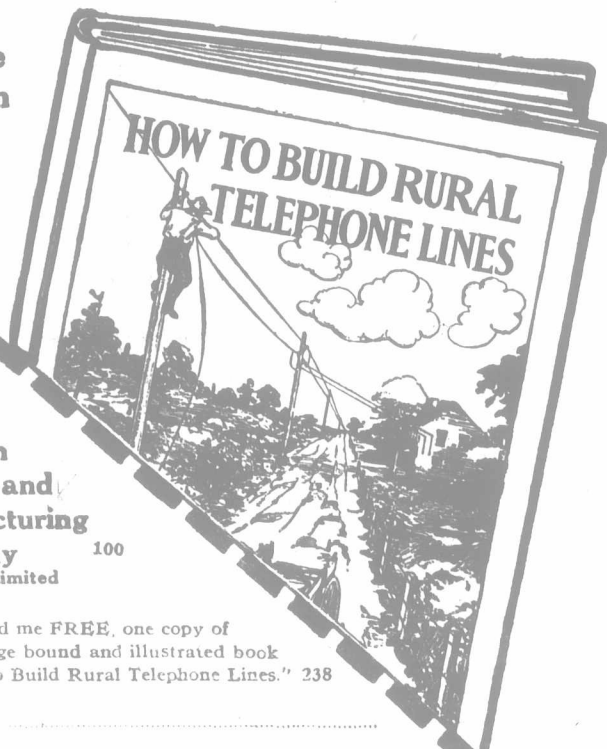
THIS PLANT IN MONTREAL STANDS BACK OF EVERY NORTHERN RURAL PHONE

THIS is the immense Canadian factory where Northern Electric Rural Telephones are made—in fact, where ninety per cent. of the telephones used in Canada come from. Our big organization, with its branches extending straight across Canada, is ready to help you in every detail of the formation and construction of a rural telephone line in your own community. Not only will we help you with your company-organization, line-construction, instrument-installation, etc., but our men are ready to give you much personal help out of their own telephone experience. With the help we offer, you can easily interest your friends and neighbors and operate your own self-maintaining telephone system.

Send For **FREE** Our Book

"How to Build Rural Telephone Lines" is an illustrated, cloth-bound book of one hundred pages, full of a carefully indexed mass of information on rural telephones. This book tells you absolutely everything in detail. No other book in existence deals so thoroughly with the subject from your standpoint. While this book has been costly to produce and we really ought to charge for it, we will send it free to anyone who, by sending us the coupon, proves that he is really interested.

Send Us The Coupon Now



The Northern Electric and Manufacturing Company Limited

Gentlemen: Please send me FREE, one copy of your 100-page bound and illustrated book on "How To Build Rural Telephone Lines." 238

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Let Us Show You Just How You Can Do It

and give you all the detailed information you need. When you have read "How To Build Rural Telephone Lines," you will have at your finger ends a mass of information that will enable you to give your friends, positive, definite facts, and make everyone around you anxious to help. All it needs to get a telephone system going is for some one progressive man to start the movement. You be that man. Send us the coupon.

238

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Manufacturer and supplier of all apparatus and equipment used in the construction, operation and maintenance of Telephone, Fire Alarm and Electric Railway Plants. Address our nearest house

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