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THE FARMER'S ADVOCATE

AND HOME MAGAZINE

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

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Vol. XLIV.

LONDON, ONTARIO, FEBRUARY 4, 1909.

No. 854

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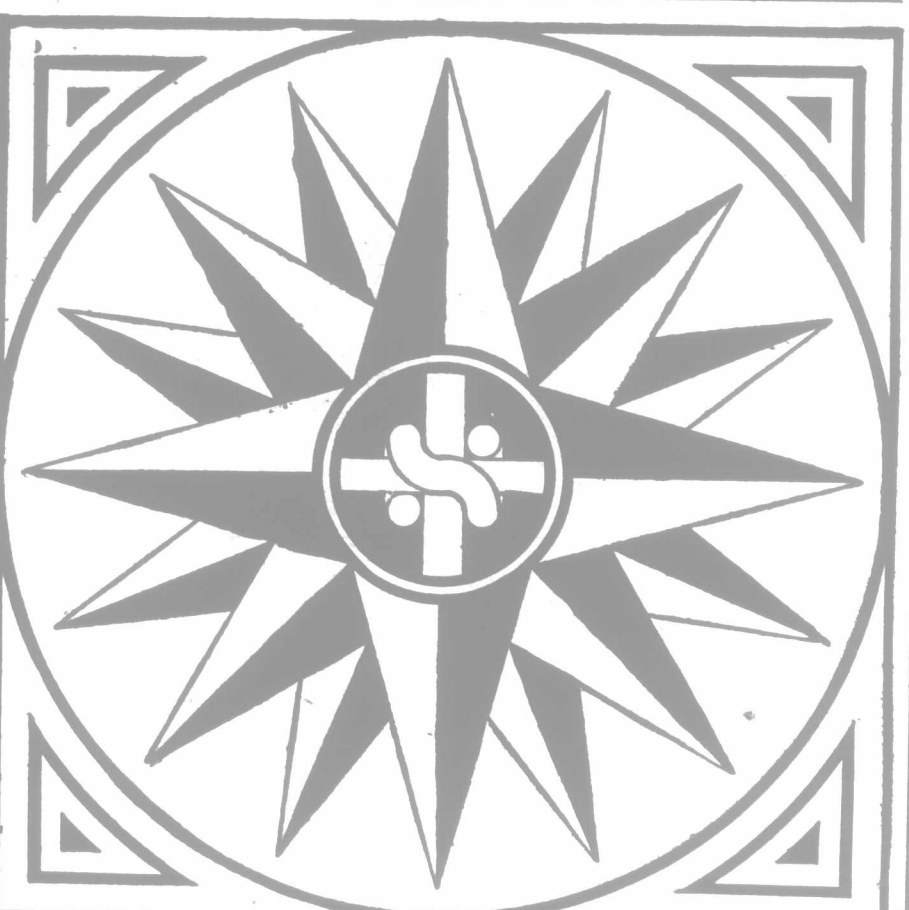
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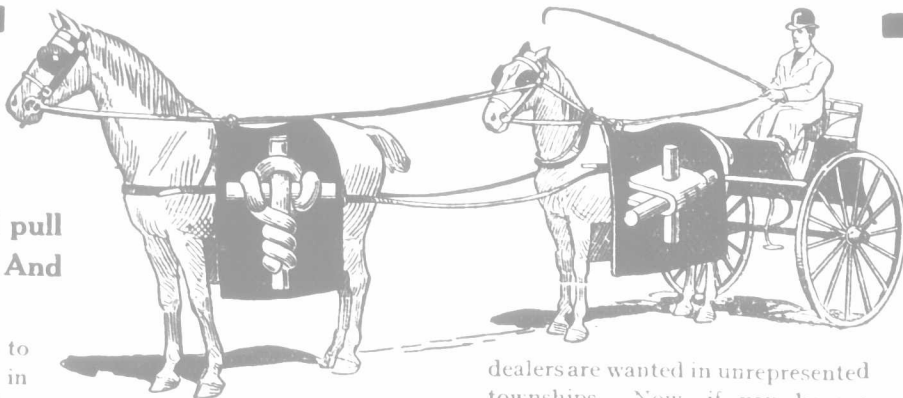
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Vol. XLIV.

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LONDON, ONTARIO, FEBRUARY 4, 1909

No. 854

EDITORIAL.

Get the Manure Out Now.

There is a difference of opinion among farmers as to how much waste of fertility occurs when manure is spread on the fields in winter. On hilly land, and in a broken winter, no doubt a rather considerable proportion of the more soluble portions is washed away. To minimize this loss, some farmers deposit the manure on the field in small piles, convenient for spreading in the spring; others haul out and stack in deep piles, to be distributed with the manure-spreader after the snow goes off. Where time permits, this is an excellent way to apply manure on corn and root land; but time does not always permit, and the method of leaving in small heaps is open to the objection that they hold the frost long in spring, not only delaying the spreading, but sometimes retarding the plowing or other cultivation of the land. Then, too, the spot directly under the heap is liable to be unduly favored, as compared with the remaining area, although this, perhaps, is better than to have the dissolved fertilizer carried away to the river.

Upon one point there is almost unanimity of opinion. Whatever is done with the manure, it should at any rate be gotten out of the yard in winter, and either spread on the field, left in small heaps, or stacked conveniently for distribution with the spreader in spring. On level land it is doubtless best to spread at once, thereby completing the whole operation at one stroke in the slack season, and having the manure in good condition to incorporate readily with the soil. If spread on sod that is to be spring-plowed for corn, the waste will be minimized. On hilly land, we incline to favor piling and distributing with the spreader, where a spreader is available, otherwise dumping in small heaps, which, after becoming frozen through, will be proof against serious fermentation and leaching until they thaw out, which in most sections will seldom occur until spring.

However the manure is handled, there will be some waste. When left in an open yard to ferment and leach, the waste of fertilizer is considerable, and the waste of time much greater, though, in a water-tight manure cellar, where it is kept tramped and worked over by hogs, the loss will not be so great. The problem is how to handle the manure economically and secure quick returns, while conserving, so far as possible, the total content of fertilizing elements. To this end, winter hauling, at least, and, in many cases, winter spreading, as well, will be found the best plan to adopt.

Eastern Ontario Winter Fair.

With such admirable buildings and reasonable facilities for getting to them, Ottawa is entitled to one of the largest winter fairs in the Dominion. The display of live stock and farm products, as well as the character of the lectures, at the recent show, should make for an increased attendance next year; but even allowing for the hopes of the most sanguine being fulfilled, the show will not reach the proportions that are desired.

The farmers of Eastern Ontario, particularly the Ottawa Valley, differ somewhat from those of the Western part of the Province, as regards interest in agricultural education. In some districts many of them spend a part of the time engaged in lumbering, or perhaps have, during but a few years, transferred their attentions from lumbering to soil cultivation and dairying. Too few have yet realized the true value of demon-

strations and discussions, and the inspection of animals and products of superior quality. Gradually an interest is being aroused, and, with the various agencies at work, particularly the Macdonald College, just across the Provincial boundary, in Quebec, after a few years, it is to be hoped, as great enthusiasm may prevail as is displayed each winter at Guelph. At present, the inclination of many seems rather to tend towards horse-races, gambling schemes, stage performances and various time-wasting pursuits, where educational features are absent.

The Eastern Ontario Winter Fair must develop on distinctive lines. It must be something more than a reflex of the preceding event at Guelph. Since a large percentage of farmers in the Eastern part of the Province are engaged in dairying, dairy features should be emphasized. Already, the milking competition is the center of considerable interest. Might it not be enlarged by offering liberal and extended lists of premiums for milk and butter-fat production, with cost of feed to be considered? Other features may suggest themselves; while on the lecture programme dairying should be given ample attention. We should like to see the programme more thoroughly adapted to Eastern conditions, and not so much of a repetition of that previously rendered at the Ontario Provincial Winter Fair. An echo of an earlier event makes a poor drawing-card.

It must be admitted that the management have had little encouragement in the past from the people they were endeavoring to serve, but it seems to us that, by breaking away from the Guelph conception, and evolving a unique type of winter fair, adapted to Eastern Ontario conditions, a larger attendance might be secured, and the resulting interest and enthusiasm will do the rest.

Feeding Value of Whey and Whey Fat.

Two important inferences are suggested by the results of an experiment conducted last summer at the Ontario Agricultural College, to ascertain the feeding value of the butter-fat in the whey resulting from cheddar-cheese making. These are:

1. That the feeding value of good sweet, clean-flavored whey has been commonly underestimated.
2. That the whey loses about one-fifth of this feeding value when the fat is skimmed off for making whey butter, or is allowed to accumulate and float as a stinking mess on top of the whey in the factory vats, to be afterwards thrown away.

During the season of 1908, the Dairy Department at the O. A. C., under Prof. H. H. Dean, conducted rather extensive experiments on the whey-butter question, and, in conjunction with the Animal Husbandry and Farm Department, in charge of Prof. G. E. Day, carried on a series of experiments to ascertain the relative feeding values for hogs of whey containing an average of about .25 per cent. (or one-quarter of one per cent.) fat, and similar whey from which the fat had been practically all extracted by means of a cream separator. A report of the results may be found in the Dairy Department of "The Farmer's Advocate" for January 28th. Eleven pigs were fed ordinary whey and meal, ten pigs were fed separated whey and meal, and twelve pigs were fed water and meal as a check group. Only about 21 pounds of whey was fed for each pound of meal. This is a rather small whey allowance, and goes to explain the extraordinarily high value indicated for the whey in promoting gains and saving meal, for it is well known that a small allowance of dairy by-products produces greater relative results than a large allowance. We presume, further, that the whey was sweeter and cleaner than that in the average factory vat,

though we are not informed that it was pasteurized. Assuming that live hogs were worth \$5.50 per cwt, and meal \$1.50 per cwt. (which is, perhaps, rather too high), the unskimmed whey, according to this experiment, would have a value of 18.2 cents per cwt., and the skimmed whey a value of 13.4 cents, a difference of nearly 5 cents per cwt. in favor of whey containing the normal residue of butter-fat.

Taking these figures as a basis, let us see what bearing they have on the whey-butter question. At the O. A. C., the average amount of whey butter made was 2½ to 3 pounds per 1,000 pounds of whey. Assuming the higher yield, and taking as an average price 20 cents per pound of butter, the value of whey butter made would be 60 cents per thousand pounds of whey. But, according to the pig-feeding experiments quoted, this thousand pounds of whey would be worth 48 cents for pig-feeding as a result of being skimmed, or within 12 cents of the gross value of the whey-butter made therefrom. If this is the case, and if the patrons are to be adequately compensated for the loss of fat in their whey, where will the profit of whey-butter making come in?

Of course, it will be said that the average patron does not get this fat, anyway, because it chiefly floats on the top of the tank; but if the whey is pasteurized, as it should be, each patron will get a fair share of the fat, and will, moreover, receive his whey in a sweet, clean-flavored condition, largely, if not wholly, free from troublesome yeasts and disease germs. Incidentally, the cans will be easier to wash, and will last longer; the quality of the cheese will be, in many cases, improved, and trouble with bitter and yeasty flavors overcome.

While the results of the feeding experiment are in line with our expectations, we confess to no small surprise at the very high value indicated for whey as a hog feed. Though this is partly explained by the rather small amount of whey fed per hog, it is still very striking, and there is a clear call for a much more extended series of experiments to verify or revise the results. With it should be conjoined co-operative experiments on as large a scale as possible, comparing ordinary skimmed with unskimmed whey; pasteurized whey skimmed with pasteurized whey unskimmed. In fact, several distinct sets of experiments should be undertaken along this line, for the subject is very important, and one experiment, no matter how carefully conducted, can never be regarded as conclusive.

Meanwhile, patrons will do well to refuse to allow their whey to be skimmed, unless liberally recouped for the fat extracted. Rather, should they insist on having their whey pasteurized, thus insuring its return in a sweet, wholesome condition, with a normal percentage of fat and full feeding value.

A Moderate Opinion and Prophecy.

Prophecy is rightly considered a risky undertaking, but when one does prophesy, let him be moderate, lest his utterances come back to rebuke him. A year ago we ventured an opinion on the feeding value of whey fat, but, if Prof. Day's 1908 experiment is substantiated by further work, our opinion will be proven to have erred on the side of moderation. However, it is just possible that additional work, under ordinary farm and factory conditions, may indicate results more nearly in line with our calculation. At any rate, we take occasion to repeat herewith part of an editorial on "The Whey-butter Question," which appeared in "The Farmer's Advocate" of March 26th, 1908.

"There is another very important point of

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PUBLISHED WEEKLY BY
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which patrons should not lose sight. The whey will be worth less for feeding. The constituents of whey that make it valuable for feeding are the nitrogenous substances, chiefly albuminoids, which average about .8 per cent., the fat averaging, say, .28 per cent., and the ash, sugar, etc., averaging 5.8 per cent. While it could hardly be said that the fat is the most important of these, yet it is of considerable consequence after all. It has usually been claimed that, while butter-fat is valuable for feeding, there were cheaper substitutes, such as starches and sugars, that could take its place in the ration. While this is true to a considerable extent, yet experience proves that when we attempt to substitute the fat entirely, young animals do not digest their food well nor thrive as they should. A small percentage of fat in skim milk or whey adds greatly to its feeding value, especially for calves. In this connection, we are reminded that, in the ordinary whey tank, much of this fat simply forms a scum, that adheres to the tank and becomes a stinking nuisance, afterwards thrown away. However, where the whey is heated, as it should be, and as many factories are proposing to do this year, the fat remains in the whey, and its full feeding value is obtained.

"Say that 2½ pounds of butter could be made by skimming 1,000 pounds of whey. Value it at 20 cents a pound, or 50 cents. Consider that the whey unskimmed would be worth 7 cents per cwt., which is a low estimate. One thousand pounds would amount to 70 cents. While we have no definite experiments to base opinions upon, it is probable that this quantity of whey skimmed would be worth 15 to 20 cents less. If so, it would mean that about one-third of the value of the whey-butter made should be taken as representing loss to patrons in the feeding value of the whey. It is possible the loss would not be as much as this if fed to well-grown shoats or calves."

I received dictionary all right. I am well pleased with it. I think I can secure some more new subscribers.
WALTER WATSON,
York Co., Ont.

New Life on Old Farms.

Townsmen, taking a hurried look at farm life and operations, often complain of our conservatism. Yet, changes—yes, revolutions—in practice do occur, but with deliberation, and though results take time to manifest themselves, they are tremendously real and important.

* * * *

Quarter of a century ago, Bay of Quinte, Ont., barley had a great name, and many growers made ready money shipping it across Lake Ontario to the States at a dollar a bushel. But the price dropped to 80, 70, 60, 50 cents, and lower, and became a losing game in more ways than one, for constant cropping was draining away the life of the soil, more deeply darkening the outlook with every passing year. When the McKinley Bill, designed to protect the American farmer, became a factor in international trade relations, a wail went up that the last nail was being driven in the coffin of farming in many a county, but it only meant the pruning out of a detrimental and dying branch of the business, and the development of a system that meant life and productivity. Instead of death, it was a resurrection.

* * * *

The County of Prince Edward furnishes a fine example of how the process worked out. Cheese dairying, with its adjunct of hog-raising; the production of canning-factory crops, such as tomatoes, sweet corn, peas, beans and berries, and apple-growing, have been the three main factors applied, with characteristic energy, steadiness and intelligence, in the successful pursuit of prosperity. To-day, with an area very much less than one-third that of Middlesex Co., Ont., Prince Edward has some two dozen splendid cheese factories, many of them equipped with up-to-date cool-curing rooms, commanding a premium price for their cheese; an immense export in barrels of high-grade apples; seventeen evaporators, in which the lower grades are dried, and eleven canning factories, several of them the finest in the world, and two others on the border, largely supplied from the county. These busy establishments are not all centralized, but well distributed among the villages, towns and rural districts, so that, wisely, the population of the county is not congested. Incidental industries, such as making of boxes, crates, special delivery wagons, transportation business by rail and boat, banking, the remunerative employment of labor, and local-store business, have all been promoted, and an excellent system of county roads for the increasing use of farmers, wisely undertaken. The farms are moderate in size, and the system of farming specialized or intensive. The coarse grains raised are chiefly fed.

* * * *

Naturally, the successfully-conducted canning-factory business is a most interesting feature of the activities of the county, and has helped to give Prince Edward the reputation of being one of the busiest communities to the square mile to be found in Ontario. One of the oldest and best-informed farmers credits this industry with having lifted Bay of Quinte farming from "under the harrow," and he designates Wellington Boulter as "the daddy" of the business, with which his sons have also been so conspicuously and successfully identified. From a modest genesis, away back in 1882, Picton, the county seat, has now three great establishments—W. Boulter & Sons, A. C. Miller & Co., and The Old Homestead. In prosperous Bloomfield, a few miles west, there are the establishments of the Bloomfield Packing Co., the Farmers' Co., and A. B. Saylor & Co.; at the beautiful town of Wellington, the Lakeside Canning Co., the Wellington Packing Co. (No. 28), and a third may be in operation this year; at Demorestville, E. M. Young & Co.; one operates at Hillier; another on South Bay, the P.

Millford Packing Co., where a second one, operated by Church Bros., burned out last year, had been in operation, making eleven in all, in addition to the Miller & Co. factory at Trenton, and the Queen City Canning Co., at Belleville, which, though not actually in the county, are largely supplied from its farms. About one-half of these establishments have been acquired by the Canadian Cannery Limited, and the others are independent. Heretofore, two of the largest amalgamated factories made their own tin cans, but hereafter, for all in the organization, the cans will be manufactured at the big consolidated factory at Simcoe, Ont. When we consider that one good-sized factory employs hundreds of hands for many months in the year, especially when the pack extends to sauces, jams, apples, poultry, etc., and the outpay for produce and wages ranges from \$25,000 to \$50,000 each in a season, and the number of cans of wholesome foods put up runs into the millions, the magnitude of the industry may be approximately grasped. It is a revelation, in the process season, to go through one of these industrial hives, like The Old Homestead, constructed a few years ago, of modern, hollow concrete blocks, with cement-floored storage, and every facility for safety and excellence of output, covering acres of ground-space. Mr. Amos H. Baker, the manager, is, by the way, this season undertaking, on a farm leased for the purpose, the production of crops for the factory, besides those contracted for.

* * * *

While the growth and delivery of canning crops makes autumn a particularly busy season with the patron, it has been demonstrated that work which proves profitable can be accomplished. It means extra labor and skill, but it pays well, crops yielding the not uncommon return of \$75 to \$200 per acre. Then, again, experience shows that this class of farming fits in fairly well with dairying, sweet corn and other by-products being valuable for feeding purposes. Not only is the county well populated, but the system of agriculture pursued has called into play a wider range of knowledge. Those who, by reason of the location of their farms, or for other causes, have confined their attention to general farming, including dairying and the specialized problem of orcharding, have realized reflex benefits from the canning industry.

* * * *

Allowing for the rapidly-increasing activities in Canadian mining, lumbering and railway construction, where such foods are now so freely used as regular items in the bill of fare, as well as in the steadily-growing towns and settlements everywhere throughout the Northwest, there are those who express a caution to the effect that the present packing equipment of Ontario is probably sufficient for the immediate needs of the situation, and that it is entirely in the nature of a judicious self-preservation that the Canadian Cannery organization, which now embraces some 38 factories, seeks to regulate the industry, but upon whose efforts the "Independents," that number as many more, are hardly disposed to look with complaisance in their belief in an unhampered opportunity to buy and sell, to "trade and get gain."

* * * *

To recount in brief the situation above described, the canning business, conceding occasional crop failures, dairying and apple-growing have in large measure restored fertility to the soils, made the farms cleaner, retained population, promoted intelligence, raised the standard of living, stimulated nearly all lines of business, wiped out numerous mortgages, and encouraged what Lord Bessborough styled as one of the strongest elements of stability of a community, viz.,

Classes for Cheese and Butter Cows.

A well-known breeder of Jersey cattle, in a communication to "The Farmer's Advocate," expresses, or, at all events, implies, dissatisfaction with the basis on which the milking competitions are conducted at the Winter Fairs at Guelph and Ottawa, arguing quite properly that cost of feed should be taken into consideration in determining the standing of the cows entered, and submitting a calculation, based on data, as to cost of feeding, cited from a report of the St. Louis Fair Board, of 1904, all of which represents the single Jersey entered at Guelph in December last as achieving 9 cents greater profit in butter-fat production than the champion Holstein cow of that exhibition. Without dwelling on the uncertainty of computing a cow's profit on the estimated cost of feeding an entirely different cow, it should, in justice, be pointed out that an item of 15 cents, or thereabouts, should have been allowed for the extra 70 pounds of skim milk and buttermilk obtainable from the yield of the champion Holstein over the Jersey in the test in question, thus transferring the balance to one of six or eight cents on the side of the other cow. This is said not in disparagement of the solitary Jersey entry, handicapped as she was by odds of numbers, nor of the breed she represents, but in simple regard for the facts of the contest, according to the official results. Were cheesemaking, and not buttermaking, the end in view, the Holstein would, of course, make a much better showing; but, even in buttermaking, skim milk has a value that should never be ignored. Twenty cents per cwt. is a low estimate to place on good sweet skim milk.

We thoroughly agree with our correspondent, however, that amount and cost of feed should be taken into consideration in the scale of points, and, though perhaps not practicable, it would be desirable to have an authenticated account of the feed consumed for, say, a week previous. It is a question, further, whether there should not be two competitions, one from a cheesemaking and one from a buttermaking standard. The present scale of points is a compromise which scarcely does justice to either, though nearer the buttermaking than the cheesemaking standard. It allows 25 points for each pound of butter-fat, and 3 points for each pound of solids not fat.

Looking at the matter, first, from a butter standpoint, valuing butter-fat at 25 cents a pound and skim milk and buttermilk at 20 cents per cwt., then, if 25 points is a fair credit per pound of fat, 24 would be about a corresponding credit for each pound of solids not fat. From a cheesemaker's point of view, if 25 points were a fair credit for each pound of fat, 6 points would be none too much to allow for each pound of solids not fat. This ratio is deduced from the "percent-of-fat-plus-two" method of calculating the value of milk for cheesemaking, making, in addition, a trifling (perhaps not a sufficient) allowance for whey solids.

Why not have two classes, one for cows to be judged as butter-producers, skim milk being considered at feed value, and one for cows to be compared as cheese-factory propositions? What do breeders think of the suggestion?

Scatter the Seed of Progress.

A great many subscribers this year are getting their subscriptions renewed for nothing but a little trouble, in many cases very little, by securing two new names at \$1.50 each, sending these, accompanied by \$3.00, and having their own date labels marked forward one year. Others send one new name, at \$1.50, being thereby credited with six months' advance on their renewals, sending 75 cents to pay the balance. Thus is the good seed scattered. Help to spread more of it in your neighborhood. Send two new names if possible, or one at least.

In reply to a question in Parliament, recently, it was stated that the estimated number of farmers in Canada in 1901 was 471,883, and in 1908, 575,000. It was also estimated that 3,349,516 persons were dependent upon farming operations for their support in 1901, and 3,782,000 in 1908. The total value of exports of farm products in 1901 was \$208,417,820, and in 1908, \$332,534,000.

Free Trade Not One-sided.

Editor "The Farmer's Advocate":

In your issue of January 11th there is a letter headed, "One-sided Free Trade," but, in fact, free trade is not one-sided, and I think that if Mr. Boyle would stand up straight against a true plumb, he would find out that it was himself that was one-sided.

Free trade is just in principle, and, for the most part, the nearer we get to it, the better for all. But absolute free trade in all things is not desirable. For instance, Great Britain has a free-trade policy, yet she has a tax on some of the luxuries, namely, wines, spirits, tobacco, and also a tax on the income of the rich. Mr. Boyle seems to be afraid of direct taxation. We have direct taxation in our township matters; why not have it in Dominion matters, as well? We would then know what we paid to keep up the Government, as it must be kept up by some method or another. Protection benefits the few at the expense of the many, and if protection is such a blessing to the United States, as Mr. Boyle states, why did both Mr. Taft and Mr. Bryan promise revision of the tariff during their campaign for the presidency, and why are Mr. Carnegie, Mr. Hill, Mr. Johnson and many others calling for lower tariffs? Nearly all the great manufacturers are calling for lower tariff or reciprocity with Canada, simply because they now see the fallacy of their policy, which was simply trying to make themselves rich by taxing themselves.

I would also like that Mr. Boyle would tell us how the farmers of Canada could be benefited by higher protection? JAMES S. MILLER.
Parry Sound, Ont.

The Stockmen's Paper.

"The Farmer's Advocate" is the Canadian stockmen's journal. In this field it has practically no opposition. Visit any live-stock exposition in the Dominion, or any concourse of stockmen, and the great majority of those in attendance will prove to be subscribers of "The Farmer's Advocate," many of them having been brought there by an advertisement in this paper. A vast amount of helpful experience and authoritative information on all phases of stock-breeding and stock-raising is published in our columns, while, for advertisements, reports of sales and exhibitions, and for general news and gossip of the trade, our columns are indispensable to any stockman who desires to keep up-to-date. Live-stock advertising is a strong feature.

In every city there is, as a rule, a certain paper which everybody patronizes as a want-ad. medium. "The Farmer's Advocate" fulfils a similar place among the Canadian stock-breeding fraternity. People who wish to buy look to our advertising columns. Those who want to sell, advertise with us as a matter of course, and, as any of them will tell you, get returns which throw all other mediums completely in the shade. Indeed, the great majority now use no other at all. Editorially and commercially, "The Farmer's Advocate" is a stockman's necessity.

Farmer's Interest in Home Manufactures.

Editor "The Farmer's Advocate":

In reading the letters, "Who is the Tyrant?" and "A Kick from the Cow," issue January 7th, one who is not politically biased may be led to think that issues are not fairly set forth. Mr. Beer plausibly states: "Perhaps I can give you a case, and I will endeavor to make it so plain that he who runs may read. In buying the Toronto machine at \$125, the \$25 duty goes into the pocket of the Toronto man, and he will have \$25 that he never earned. If the farmer buys the Chicago binder, the \$25 duty will go into the Dominion treasury, and will benefit all. The farmer, of course, will be out his \$25 in either case."

Statisticians inform us that one-half of the price an article sells for is paid out as wages. Then, there are raw materials, transportation of raw materials to manufacturing plant, cost of sale, etc. Quite a proportion of the \$125 is paid out to the laborer, skilled and unskilled, and it would be interesting to know exactly the amount which goes into the pocket of the manu-

facturer; how much he gets for interest on capital; how much for wear and tear; how much for depreciation in buildings; for protection, insurance for protection of men engaged in dangerous work; how much the manufacturer receives for direction of labor and worry of financing.

If the \$125 were paid to the Chicago man, all that money, except the \$25 duty, goes into the hands of citizens of the United States; to pay for all the items mentioned above. "He who runs" sometimes thinks that the \$125 may be better placed in the hands of Canadian citizens. The home market is of great value to the farmer. The \$125 gives employment to the creator of the home market. The men engaged in skilled labor are paid better than the ones employed at unskilled work, and can afford to pay a higher price for choice butter, eggs, meat, fruit, etc., and it is to this class of customer that the skilled farmer looks for a higher price for the products of his skill. The mechanic, the heads of educational, manufacturing and mercantile establishments, the doctor, the Cabinet Minister, the lawyer, and so on, are all highly-paid laborers.

If we allow a great proportion of our manufacturing to be done in foreign countries, a great proportion of our intelligent and ambitious young men will go to such foreign countries, where their abilities will meet with larger returns. We do not wish to be the "heavers of wood and drawers of water" merely.

Some of the talk about the "rich men being fed on pap," and of the "worm turning on the enemy," "the man who cannot live in a free-trade country is not worthy the name of a man," makes one feel like using a sporting phrase, "Play the Game."

Capital will not be invested in industries that will not yield a fair return. If other countries refuse to buy our finished products, which is what is proposed when a high tariff is adopted, shall we be satisfied to sell only those articles which require the least skill to produce, and which receive the poorest reward for production?

If other countries would adopt a free-trade policy, the arguments of free-traders would be more readily accepted. Great Britain has made rapid strides under a free-trade policy, but the United States and Germany have made greater comparative progress under a highly protective policy. It seems necessary to fight tariffs with the same weapons. Capital flows to where it receives protection. JOHN NEWTON.
Labelle Co., Que.

Active Meeting of Farmers' Club.

Editor "The Farmer's Advocate":

The annual meeting of the Brant Township Farmers' Club, held on January 12th, showed that, although it was asleep a few months during the busy summer, it is yet as live as ever, and perhaps a little more so. Judging from the enthusiasm displayed at this meeting, the future success of our meetings will be more pronounced than ever. It is becoming apparent that enterprising farmers are feeling the necessity of more co-operative work. The co-operative buying of seed is only one of the many advantages that will result from organization in a farming community. We, as farmers, have been partially asleep to our own interests, and are only beginning to get out of our stupor. We are beginning to see wherein we can improve ourselves, and it will be the purpose of our Club to help to bring about as many of these improvements as we can.

Since organization, on March 6th, 1908, six meetings were held, and many important matters discussed. The interest manifested by those present was always sufficient to keep the meetings from getting monotonous. The progressive farmer is always willing to learn, and takes an interest in similar meetings, because there is a circulation of ideas. He feels that activity is life, while inactivity is death.

Last spring our neighborhood bought its seed corn and clover seed on the co-operative plan, and the prospects are the same will be done this year.

Experiments in fertilizers were conducted by different members, some showing good results, others none at all, and stable manure will still be used as a fertilizer. Taking the year all through, and considering it being our first year, we had a very successful year, as a Club.

The old officers were re-elected. Mr. Player, of the Walkerton Creamery, addressed the meeting, with a view to starting a cow-testing association. He distributed a number of pamphlets—Bulletin No. 12, by J. A. Ruddick, of Ottawa, on testing associations—and explained the advantage of knowing just which cow paid for her feed, and which would have to be classed as free boarders. He mentioned a large farm in Quebec where he was at one time employed that took a daily test of every cow in the herd. There were always about 250 cows, and any cow producing less than 300 pounds of butter in a year was sold.

Two papers were given, one by A. E. Wahn, and another by W. Rowand. Mr. Wahn's subject was "Entertainment in the Home." He said that every home should have something in the line

of entertainments, because they promote a love for home, which is most desirable, and a lack of this is the curse and death of a nation. It also kept the different members of the family at home, and the social intercourse promoted a love and respect for each other. By keeping the family at home, it kept them out of mischief. This, of course, was more applicable to town homes. Entertainment at home was kept under the supervision of the parents, which was not possible with entertainment sought elsewhere. It became a source of culture and refinement. Entertainments that instruct, as well as entertain, should be selected, but, unfortunately, the instruction part is not always considered. It is not generally known that character is greatly influenced by the manner and spirit in which entertainments are carried on. Every emotion, whether good or bad, that is aroused in the course of a game tends to strengthen that particular emotion in character. When we exercise our arm it grows stronger, and the same with emotions. Exercise a trait of character, either good or bad, and it grows. Here, then, is a good reason why we should think only good and high thoughts. Thought and emotion are the builders of our character, and the kind of character depends on the kind of thoughts and emotions.

The question of how to keep the boy on the farm depends much on the early cultivation of love for home and farm life. Farming can be made interesting, and a love for farm life can be cultivated, just as well as any other occupation. The study of nature was referred to as the bottom plank in the development of love for farm life. Get your children interested in nature, in its many branches, and you will not have to try to keep your boys on the farm.

Reading was spoken of as the most profitable entertainment, and two common classes were reading for instruction and for amusement. The question of what to read had to be answered by each individual himself, depending on what he desired to make of himself. If he desires to become a man of no account, he can read novels and other light stuff; while, if he desires to become a man of some importance, he must read heavier reading—something that will arouse his brain into action. Exercise of our mental faculty strengthens it. The habit of getting a story-book as a present for a youngster was said to be a waste of money; better get him a book on the study of insects, plant life or birds, etc. It would do more towards making a good farmer than all the stories published. Some good farming paper should, of course, be in every farm home.

Mr. Rowlands, in dealing with "Entertainment in the Club," said that everyone could assist by being present and taking an active part. It must be a sort of central station, at which ideas are switched round and exchanged. Ideas are things that cost nothing, and by giving to your neighbor you are doing him good and yourself no harm; you are making him your debtor, and in that way benefit yourself. We should encourage asking and answering questions, as this often led up to other important branches of the subject. Recitations and readings should be encouraged, as they helped the faculty of expression. Debates, too, must not be forgotten. They stimulated the mental faculties into action, sharpened the perception, and were a great source of information both to the debaters and the audience. Quite a lot depended on the president in selecting subjects, and men to present them. Subjects of live interest to farmers should be chosen. After all has been said, the success of the Club depends on what we make of it; and if all do a little, there is no reason why the Club cannot again be of increasing value.

The Club appointed Experimental and Entertainment Committees, and decided on a debate for next meeting. Subject: Resolved, that it is better to specialize on a certain crop than to continue in mixed farming. A. E. W.

Complete Substitution for Milk Fat Unwise.

It is probable that the advantage of the small proportion of butter-fat in whey lies not alone in its own nutritive value, but partly in that it improves the digestibility and balance of the whey. Of late years we have heard so much about the economy of substituting starchy and sugary feeds for butter-fat in the ration of calves and pigs, that there is a tendency to depreciate the peculiar value of the natural fat as a food for young stock. "The Farmer's Advocate" has more than once pointed out that, while such substitution may be all right up to a certain extent, it is not wise to abstract all the fat from skim milk or whey to be fed to young calves or pigs. The point is that, while meals rich in carbohydrates and vegetable fats or oils may profitably take the place of MOST of the milk fat, they cannot equally well be substituted for ALL of it. In other words, one-quarter per cent. of fat in whey or skim milk is doubtless worth considerably more than half as much as double the proportion would be, just as two pounds per day of skim milk or whey will do a calf or pig relatively more good

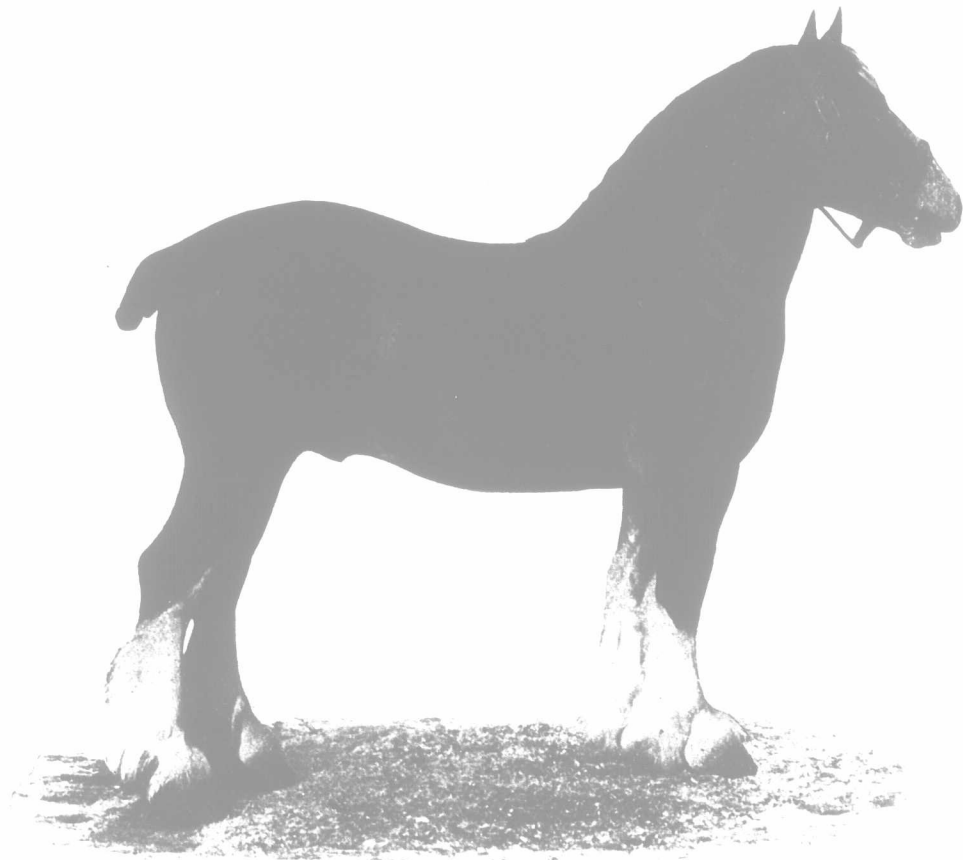
than twice the quantity. Milk serum and milk fat are the natural food of the young animal. They may be economically substituted in part, but should not be entirely withheld, if it can be avoided. To do so is usually false economy.

HORSES.

Flooring Horse Stables.

Clay, planking and concrete are the three materials of which stable floors are commonly made. Of the three, a good clay or earth floor is undoubtedly the best, providing it could be kept in perfect condition as regards cleanliness, dryness and levelness of surface. It is good for the horses to stand or lie on the soil itself, if the soil is dry, and not reeking with filth or soaked with urine or other moisture. But a clay floor is not a practicable proposition. For boxes, it answers fairly satisfactorily, but for ordinary stable requirements it is far from being what an ideal floor ought to be.

The objection to plank floors is that they lack durability, and, since the planking is always some distance above the ground, there is danger of the horses breaking through. Also, the space underneath is dark and filthy, and gives off disagreeable odors. Good plank floors are about as satisfactory as any that can be laid down, but, as a rule, they are "good" only for a comparatively few years. They have to be soon replaced, and are none too reliable at best. Plank make the warmest floor of the three materials named; the horses will do with less bedding, but they lack durability, and nowadays are becoming expensive.



Duntre Nikko, Imp. [8792] (14102).

Clydesdale stallion, bay, foaled May, 1906. Second in class, Ontario Horse-breeders' Exhibition, Toronto, January, 1909. Imported and exhibited by T. H. Hassard, Markham, Ont. Sire Hiawatha.

Concrete has advantages and disadvantages as a horse-stable flooring material. It is watertight, solid and clean, but is a little too hard. Horses standing on it are said to stoop up more easily, if they are addicted to swelling in the legs, while standing idle. It is also slippery, and rather cold, and unless considerably more bedding is used than is required on a wood floor, the horses are likely to be uncomfortable. Concrete is durable when properly laid down, and therefore economical. A fairly good floor is made by using a concrete bottom, and laying plank over this for the horses to stand on. The extra cost per plank need not exceed two dollars per stall, and this might easily be repaid in a year or two by improved health of the horses and condition of their feet and legs, not to mention comfort.

There would seem to be a profitable field for someone who can invent a cheap, warm, clean, watertight and durable material for horse-stable floors.

Many a vicious horse has been started on his bad career by not being properly handled when young. Even though the colt is naturally of a bad disposition, he can be easily managed while under six months old. When he once is taught that man is his master, the first step in his training has been successfully accomplished.

Canadian Registration of Thoroughbreds.

Editor "The Farmer's Advocate":

The usefulness of our Society is every day becoming more apparent both to the owner and importer of Thoroughbred stock, as well as to the Dominion of Canada at large. Members of our Society now extend from the Atlantic to the Pacific oceans, and the past year of 1908 has shown, in the matter of registration of stock at Ottawa, that the Thoroughbred Horse Society is only second to the Clydesdale Horse Society.

The country that depends upon its native breed of horse, without frequent crossing of the Thoroughbred horse, will never become prominent as a producer of the light horse for driving or saddle purposes. A cross of the Thoroughbred blood is the backbone upon which all the lighter breeds of horses must build, if Canada expects to take her place as a horse-breeding country, as she is entitled to do. Canadians should have enough national spirit in them to support the Canadian Thoroughbred Horse Society, through which they can register, for a small fee, their Thoroughbred stock, and receive from the National Live-stock Records, Ottawa, a certificate issued and stamped with the approval of the Canadian Government.

WILLIAM HENDRIE,

Pres. Canadian Thoroughbred Horse Society, Toronto, Ont.

Rapid Growth of Milk-fed Colt.

Editor "The Farmer's Advocate":

Early last fall I saw in your columns a request for experience of farmers in feeding milk to colts. Having had a little experience along that line, I watched eagerly for the experience of others, in the hope of getting new ideas, but have not seen anything yet. As I first got the idea from the columns of "The Farmer's Advocate," it is only fair to give its readers the benefit of my experience. In October of 1907, I bought a foal, the get of a 1,400-lb. mare and 1,700-lb. Clydesdale stallion. It was very small when I brought it home, only girthing 4 ft. 4 in. I started to feed it skim milk, 1 quart a meal twice a day, gradually increasing till it was getting 3 quarts a meal. I added to this a little ground flaxseed, till it was getting about two tablespoonful per meal. Its other feed consisted of equal quantities of bran and oats, by bulk, all it would clean up, till it was eating two quarts of

mixture per meal, with one quart pulped turnips daily; also, all the clover it could eat. Was turned out to pasture as soon as grass was long enough to bite, and this feed dropped. This filly, at 18 months old, girthed 6 feet, and weighed 1,100 pounds. A full brother to this filly, this fall, equally poor, has, on similar treatment, gained half an inch a week in girth. These colts always get about three hours in the yard daily.

Muskoka District, Ont.

AMATEUR.

[Note.—This experience is very satisfactory, and should be instructive to others. A little sweet skim milk is an excellent and very profitable feed for weaning colts. Care must be taken, however, not to overdo the feeding of milk to foals, more especially of whole milk, else the tendency will be to stimulate excessive laying-on of fat, beyond the ability of the joints to support. This does not apply to a moderate allowance. Indeed, a reasonable quantity of skim milk, along with bran and oats, will tend to the development of bone, as well as flesh. Exercise will help to prevent accumulation of excessive fat. Editor.]

Your "Farmer's Advocate" knife is a dandy. Sarnia, Ont. W. L. McKENNON.

To Improve the Horses.

Despite constant warnings through agricultural papers, and at Farmers' Institute meetings, the practice of using low-grade mares for breeding purposes, and of crossing breeds, continues to be responsible for inferior horses in all parts of Canada. For many years, Mr. George Gray, of Durham County, Ont., has passed judgment on horses at fairs in all parts of the Dominion. A short time ago he returned, after an extended trip through the West and in British Columbia.

Asked his opinion regarding the present status of the horse industry, Mr. Gray replied: "Great damage has been done to the horse industry of Canada by a persistent mixing of breeds. When a man starts rearing colts of a certain breed, he should not change, unless he finds that he has made a wrong selection. He should not, in any case, continually change the breed of stallion made use of."

"At all shows, a glaring weak point is found in the class of brood mares. Too many farmers dispose of their best females, and breed from inferior animals. I have sometimes turned down whole classes. Clydesdale mares, as a rule, have more quality than those of other breeds. Females of the light breeds are deplorably weak. No brood mare in any class should get a prize if she is blemished."

"In all parts of Canada we have as good sires as can be found in any country. Every farmer should make use of these. Canadians are well equipped with means of ascertaining desirable type and proper conformation. Short courses in judging are doing much to improve the class of horses. If every farmer would take advantage of the educational facilities available, and act according to the teachings of those who have made a study of horses, there would soon be a great change for the better in the class of horses at our shows."

LIVE STOCK.

Another Ventilation System.

Editor "The Farmer's Advocate":

In replying to your inquiries about ventilation, I would say that my stable is ventilated by means of two large galvanized-iron ventilators on ridge of barn, the fresh air coming in through 2 1/2-inch tiles at top of basement wall. The temperature is regulated by means of a trapdoor in hay chute, and also by the door leading up into the barn, which can be left open or shut; when the doors are all shut, the foul air rises and finds its way through these openings, and passes out through the ventilators on the roof, and if I wish to do so I can open the trapdoor and stable doors, and the fresh air will come down from the ventilators and air the whole stable. If too much cold air is coming in through the tile, they are closed up by wooden plugs.

I do not consider this an ideal system, but it is a long way better than none. I have gone into stables in this neighborhood sometimes on a warm, damp day in winter, when the air was almost sickening, and people will compel their animals to breathe this foul atmosphere for months. If I go into my stable and find that there is a smell of foul air, I immediately know that something is wrong, and proceed to let in more fresh air, and open up my ventilators.

Perth Co., Ont.

OBSERVER.

Stable Walls and Floors.

Editor "The Farmer's Advocate":

We had our barn moved last summer. It was 50 x 32 ft. We put a 12-foot addition to the south side, making it wide enough for three rows of stock, with stone wall, 18 inches, insulated with brick lining, and plastered on the brick, leaving a space between. When building the stone wall, we put in tie wires in rows about three feet apart as they went up; then let the wall dry before laying up the brick. I think it makes the most durable and satisfactory wall that I know of. We put in ten windows as high up in the wall as we could get them, and horizontal; I think that throws the light better than if perpendicular. In putting in the horse mangers, we raised the bottom 18 inches with cement well smoothed off on top; it makes a nice floor for a manger, and we don't require any feed boxes. It is 16 inches at bottom, flaring out both ways to 2 1/2 feet at top. Now, every person who looked at that bottom before the manger was put on said it was far too high, but, when finished, it is all right. Floors are all cement. As soon as the cement is dry enough to walk on—in about 12 hours—we mark it into 4-inch squares, with a scratch-awl, and then take a bolt or iron rod and hammer it down on the marks, to prevent slipping; that is, behind the horses. In the stalls, we make one mark up the center, and the other marks slanting towards it.

I am very much impressed with the modern, sanitary cow stalls and stanchions adjustable to the length of the cattle. Cow chains have seen

their best days for dairy cattle, as they are not sanitary, allowing the cows to back into the gutter, and then step ahead and pollute the bedding. (Oxford Co., Ont.) WM. AFFLECK.

Plant Food and Animal Nutrition.

When we study the nature of the food of plants, we find that from such simple substances as carbon dioxide, nitric acid, water, and a few salts, a plant is capable of constructing a great variety of elaborate compounds. It accomplishes these surprising transformations by a consumption of energy (sunlight) external to itself. An animal has no such constructive power. The animal frame is built up of food compounds which are simply transformed into similar body compounds; or it may be produced by the splitting up or partial combustion of some of the food constituents in the body. The animal derives no aid from external energy. The temperature of the animal body (about 100 degrees F.) is maintained by heat generated within the body by combustion of materials eaten as food.—[Prof. R. Harcourt.

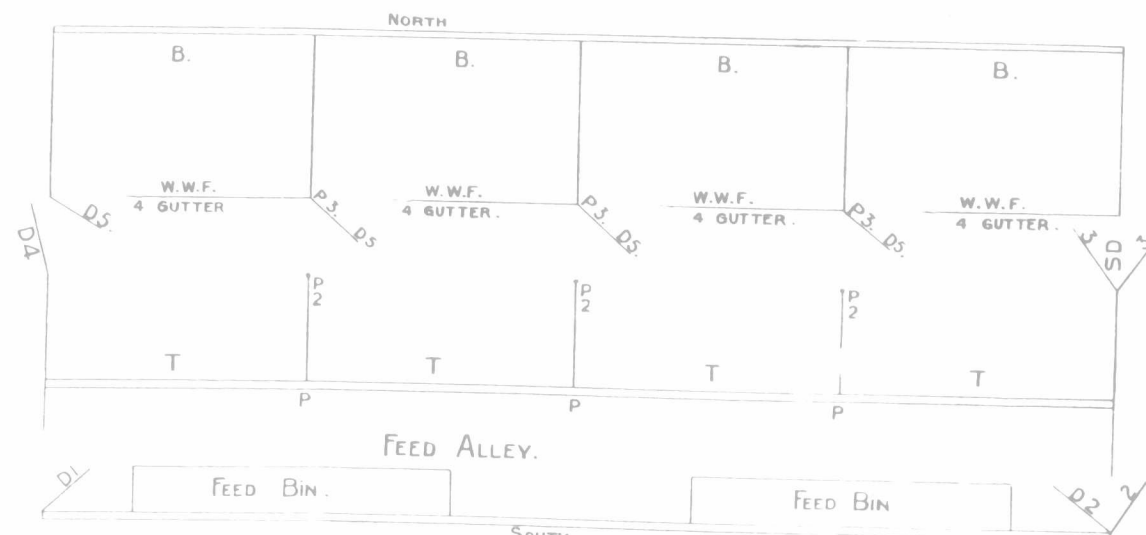
Economizing Dairy By-products.

O. A. C. experiments in 1908 go to illustrate the accepted principle that, to make the most out of dairy by-products, they should be fed in limited quantities, and not swilled down the necks of a few pigs and calves. A value of 18 cents per cwt. for good sweet whey, as a pig feed, is calculated to make some feeders sit up and take notice. In the experiments in question, the whey was fed in rather small quantities, being at the rate of 2 1/2 pounds of whey for each pound of meal consumed. In larger quantities, no doubt, a smaller return would have been obtained. For most economical results, give a limited quantity per head, but feed it regularly and in a sweet, wholesome condition.

Pigpen Plan.

Editor "The Farmer's Advocate":

In your issue of January 14th a subscriber asks for a plan of a pigpen. I am sending you a plan of one I built in the summer of 1908, which is giving entire satisfaction. My pen is 18 by 40 feet, facing the south, as you will see; built with scantling frame 10 feet high, set on cement-concrete foundation. Walls are double-boarded on north side and both ends, with building paper between; south side is single-boarded, and all walls are veneered outside with two inches of cement; inside walls are double-boarded with half-inch hemlock, with building paper between. There is joist eight feet from floor, with loft for bedding. There are four windows in south side, with eight lights of 10 x 12 glass, and one window in west end. There are four ventilators in north and south sides, 2 x 4 inches. D No. 1, entrance to feed alley; D No. 2, entrance to yard; T, trough, v-shaped, built of cement; P 1, post for swing front, set with 4-inch slant over trough, which causes front to swing over trough; P 2, door post for dividing pens; S D 3, slush door for cleaning out with wheelbarrow; D 1, three-foot-high shipping door, with elevated gangway outside; D 5, doors for dividing pens and closing pigs in bed-place when cleaning out; B, bed-places; W.W.F., woven-wire front, with ten inch board in bottom wire two feet high, which lets sunlight strike direct on beds. Floor of feed alley and bed-place are on a level, floor from trough to gutter has 2 1/2 inches fall. Bed-places are floored with inch lumber, on 2 x 1-inch scantling, set on edge. We have chute over each bed-place for letting down bedding. Feed bins are 18 in. by 12 ft.; feed alley is 4 1/2 feet wide; center or feeding apartment, 6 1/2 feet wide; sleeping or bed-place, 6 feet wide. (Simcoe Co., Ont.) A. E. WRIGHT.



A. E. Wright's Pigpen Plan

THE FARM.

Shingle-roofing Pointers.

Editor "The Farmer's Advocate":

I notice that sometimes you have queries regarding shingles and roofing, and I thought I would give you my views on the shingle question for what they are worth. Shingles are ordinarily sold by the thousand, and the standard size is 4 inches wide, but nowadays nothing is said about the length or thickness, and these two dimensions are important factors in making a serviceable or useless article. Most farmers who come to the mill to buy will be able to tell the size of the roof to be covered, and take their choice of what is offered mainly from the standpoint of price, and the most intelligent seem to have the haziest of notions as to what constitutes a good shingle for their purpose. The old standard size was 18 inches long, and five butts together to equal 2 1/2 inches, and a few mills are still cutting that size, but the tendency is to drop to 16 inches in length, and six butts to 2 inches, which makes a big difference to the mill man, as he saves timber, labor, and last, but not least, freight, and the farmer still buys by the thousand and pays the same price, and does not know the difference till this roof is on some years, and then he finds it out a-plenty. A shingle never rots on a roof, but is worn out by the action of wind and rain on the exposed surface, and it stands to reason that the thinner it is and the shorter it is, the less timber there will be at the weather line to hold, and there is the weakest place. The difference does not seem so great until you come to compare, and perhaps measure, and then figure out the difference in the amount in the two pieces. Just for the moment, suppose you are measuring the two sizes, what will you find? On the 18-inch shingle, at a point 5 inches from the butt, you find you have just 3/8 inch of timber, and on the 16-inch you have 9/32 inch, which gives you a difference of just about 25 per cent. more wood in the heavier article, and a great deal less than 25 per cent. often spells the difference between satisfaction and dissatisfaction.

Certainly, in this instance, it seems to be one of the reasons for the spread of the metallic roof that seems so prominent in your advertising columns. After you have decided on the size of shingle you need, then the next essential is the way it is manufactured. A roughly-cut shingle will never give good service. In the first place, it seems to have the power to draw the water up under the weather line by capillary attraction, and the fuzz in dry times is a harbor for sand and a vantage ground for mosses to start. Then, too, the edging must or ought to be carefully done, so that the butts are a little narrower than the points. If it happens that the butts touch, and the joint above is wide, the joint fills with leaves or other debris and starts a rot; where, if the butts were open the stuff would wash out and be carried off the roof. And for that reason, the shingle that is edged by a wheel-jointer is a better article than one edged by a saw, for the wheel planes smooth, while the saw makes a rough cut.

When you have your shingles ready to put on, decide whether you want to paint them, or not, before they go on. If you want a good job, dip your shingle in any of the advertised shingle stains, and see that it is well done, and let dry before it is laid; but if you don't dip, don't paint and expect satisfaction. There is no paint or other dressing that I know of that will give good results on a roof after it is laid, and I have often remarked that the better the paint was, the worse it was for the roof, and the reason is not far to seek, as the work is very often done in the heat of summer, when the wood is hot and dry, and it drinks up the oil of the paint till all the exposed surface is saturated

with it, and, if you notice a man painting, he is always seen to be most carefully dabbing it thick on the weather line. Then, when the rain comes, it breaks through the joints onto the shingle below. The wood being dry and free from paint, absorbs the water, which soaks down to the weather line, there to be met by the wall of oil-soaked wood. The water must stop where it is until evaporated, and so it runs for three or four years, and then the butts start to break off and come fluttering down, and the water comes through the roof, and the idea is borne in on the owner that "shingles are no good," or at least not what they used to be.

A shingle of proper size, properly dipped, will give as good results as any roof I know of, but a painted roof, or a roof made of those skimmed and pinched little pieces of wood, will never give satisfaction, and they will, I think, eventually put the public from using them entirely in all sizes and qualities.

I know of a roof near here that was shingled nearly 30 years ago with basswood, pine, cedar and hemlock, just as a test, and, strange to say, the basswood seems to be lasting just as well as any of the others, and the roof is still weather-proof. But don't understand me to say that I would recommend basswood as a material for shingles; that is only one test.

AN OTTAWA VALLEY MILL MAN.

Valuation of Fertilizers.

Trade values of elements of plant-food in raw materials and chemicals are given in Bulletin No. 304, recently issued by the New York Agricultural Experiment Station. The figures given correspond to wholesale prices in New York State for the six months preceding March, 1908, plus about 20 per cent. in the case of goods for which there are wholesale quotations.

The values given are:

	Cts. per pound.
Nitrogen in ammonia salts	17½
" in nitrates	18½
Organic nitrogen in dry and fine-ground fish, meat and blood, and mixed fertilizers ..	20½
Organic nitrogen in fine-ground bone and tankage ..	20½
Organic nitrogen in coarse bone and tankage ..	15.0
Phosphoric acid, water-soluble	5.0
" citrate-soluble (reverted) ..	4½
Phosphoric acid, in fine-ground fish, bone and tankage ..	4.0
Phosphoric acid in cottonseed meal, castor-pomace and ashes ..	4.0
Phosphoric acid in coarse fish, bone and tankage ..	3.0
Phosphoric acid in mixed fertilizers, insoluble in ammonium citrate or water ..	2.0
Potash, as high-grade sulphate, in forms free from muriates (chlorides), in ashes, etc. ..	5.0
Potash in muriate ..	4

Continuing, the bulletin says: The total cost to the farmer of a ton of commercial fertilizer may be regarded as consisting of the following elements: (1) Retail cash cost, in the market, of unmixed trade materials; (2) cost of mixing; (3) cost of transportation; (4) storage, commissions to agents and dealers, selling on long credit, bad debts, etc. While the total cost of a fertilizer is made up of several different elements, a commercial valuation includes only the first of the elements entering into the total cost; that is, the retail cash cost in the market of unmixed raw materials.

The agricultural value of a fertilizer depends upon its crop-producing power. A commercial valuation does not necessarily have any relation to crop-producing value on a given farm. For a particular soil and crop, a fertilizer of comparatively low commercial valuation may have a higher agricultural value, while, for another crop on the same soil, or the same crop on another soil, the reverse might be true.

RULE FOR CALCULATING COMMERCIAL VALUE.

Multiply the percentage of nitrogen by 4, and add to the product the figures representing the percentage of available phosphoric acid and of potash. The sum expresses in dollars and cents the approximate commercial valuation of the fertilizer. For example, take the analysis of a sample that contains:

Nitrogen	2.52 per cent.
Available phosphoric acid	6.31 per cent.
Potash	6.64 per cent.
2.52 (per cent. of nitrogen) multiplied by 4, equals	\$10.08
6.31 (per cent. of available phosphoric acid) equals	6.31
6.64 (per cent. of potash) equals	6.64
Total, per ton equals	\$23.03

If a fertilizer contains only one or two of the three essential fertilizing ingredients, the rule can be applied equally well.

While the results given by this rule are not exact, they are fairly accurate, and the rule has the great advantage of simplicity. It does not take the insoluble phosphoric acid into consideration at all. A somewhat more accurate valuation would be made if the following rule is followed:

Multiply 4.1 by the percentage of nitrogen.
Multiply 0.9 by the percentage of available phosphoric acid.

Multiply 0.4 by the percentage of insoluble phosphoric acid (total minus available).
Multiply 1.0 by the percentage of potash.

The sum of these 4 products will be the commercial valuation per ton on the basis taken.

For example, the table of analyses shows a certain fertilizer to have the following composition: Nitrogen, 2.52 per cent.; available phosphoric acid, 6.31 per cent.; insoluble phosphoric acid, .89 per cent.; potash, 6.64 per cent. Following this method of valuation, the computation would be:

Nitrogen	4.1 x 2.52	\$10.31
Available phosphoric acid	0.9 x 6.31	5.68
Insoluble phosphoric acid	0.4 x .89	.35
Potash	1.0 x 6.64	6.64
		\$22.98

This latter rule assumes all the nitrogen to be organic, and all the potash to be in the form of the sulphate. If a considerable portion of the nitrogen exists in the fertilizer as the nitrate of soda, or as sulphate of ammonia, and the potash is present as the muriate, the valuation should be somewhat less.

Farmers should be warned against judging fertilizers by their valuations. A fertilizer, the cost of which comes chiefly from the phosphoric acid present, would value much lower commercially than a fertilizer with a high percentage of nitrogen, and yet the former might be the more profitable one for a given farmer to purchase.

men to carry water, and carrying water is very little short of drudgery for a woman.

Then, as to our soft-water system, a cistern built of brick, with cement mortar, and plastered on the inside with cement, is situated in the cellar. A small force-pump, connected by lead piping, brings the soft water up to the wash-room, where there is a sink, with a lead-pipe trap beneath to prevent the escape of sewer gas. The sink is connected with the drain from the bathroom. The bathroom is situated upstairs, and has a tank capable of holding about 150 gals., hung from the ceiling by iron rods, which go through the attic floor, and are held by cleats. The eavestrough runs into this tank. When it is full, the water escapes through an overflow pipe, and enters the cistern in the cellar. Beneath this suspended tank is the iron reservoir, from which pipes run down to the kitchen range, thus giving a supply of hot and cold soft water for the lavatory and bath. A closet and bath are also features of the bathroom. A soil pipe runs out through the roof, and is connected at the bottom end with a sewer-pipe drain. This drain empties into a cess-pit about 20 yards from the house. This first cess-pit catches all the solid matter from the bathroom, and the second cess-pit receives the overflowing liquid, which filters away through the soil. This arrangement has been in use for eight years, and has never yet required to be cleaned out. The cess-pits are simply holes four feet square and six feet deep, dug in the ground, and boarded up to prevent caving. They are covered with lumber. In the top of cess-pit No. 1 is a tile standing on end for ventilation. The system has worked well, no sewer gas being ever perceptible in the bathroom. As to cost of fixtures, an A. guaranteed bathtub costs about \$30; a closet fixture can be obtained for \$15, and a lavatory for \$10. If my memory serves me, I think the whole system, including bathroom fixtures, with boiler and piping, together with cost of plumbing, cost about \$225. A system less elaborate, and with less piping, could be installed for very much less money, but my advice to those contemplating such a move would be to do well whatever they attempt in this line; put in the best materials, and employ skilled labor, and you will be amply repaid in comfort during the ensuing years. We have yet to have the slightest particle of trouble with our system, which gives us all the advantages of city waterworks, minus city water rates.

The lavatory, closet and bathtub are all fitted with traps, which prevent any odors from the soil pipe escaping into the bathroom. The traps are U-shaped, and are always full of water. The closet is of the siphon pattern, with low-down water-box, which is much superior to the old-fashioned high water-box. The tank suspended from the ceiling gives plenty of pressure for both closet and bathroom. This tank is connected with the force-pump in the wash-room, so that if it should be run dry, water can be pumped up from the cistern in the cellar.

Middlesex Co., Ont. W. E. WILLIAMS.



Royal Chieftain.

Shorthorn steer, two years old. First in class and reserve for breed champion-slip, Royal Show, 1908. Bred and exhibited by H. M. the King.

Modern Conveniences in Country Home.

Editor "The Farmer's Advocate":

As to conveniences for the housewife, I will describe some that we have installed. Our house was built in 1901, and is comparatively new. In the pantry, we have a waiter running down to the cellar. When a meal is finished, all perishable food is at once placed on the waiter and lowered into the cellar. This saves the housekeeper many a trip up and down the cellar steps. The waiter consists of shelves fitted inside a box without top or bottom; sash cord attached to this runs over a large wooden pulley, and is made fast to a large cement weight, which counterbalances the weight of the elevator, and makes it easy of operation.

Our hard-water system consists of a well and windmill, situated about 125 yards from the house. The water is pumped into a galvanized-iron tank, placed about 15 feet above the barn floor. The piping leading to it is cased with cull hemlock lumber, and packed with sawdust to prevent freezing. The tank has a tight-fitting lid, and is also cased and packed to prevent any possibility of a freeze-up. The pipes enter the house cellar beneath the wall, and from there run to the wash-room and summer kitchen. There is a tap in the cellar, one in the wash-room, and one in the summer kitchen. The installation of the piping, exclusive of the pump and windmill, cost about \$60, but we would not be without the water for double the amount. When the men are in the fields, it often falls to the lot of the wo-

Results of P. E. Island Auto Legislation.

Editor "The Farmer's Advocate":

Knowing the deep interest you take in the farmer's welfare, I thought you would like to know the result of prohibiting the running of automobiles on the streets and roads of Prince Edward Island. Since the passing of the Act, we have been held up to ridicule by papers in the United States and the Provinces; so, we would just say to those people to mind their own business, and we will mind ours.

Previous to the introduction of the auto, or "devil wagon," one could scarcely look on our roads without seeing a horse and carriage passing; but as soon as the automobile was introduced—pronto, change—scarcely a horse was to be seen passing, and those who did, went in fear and trembling. Runaways and upsets frequently occurred in town and country, resulting in serious injury, and in some cases maiming for life. But, change again, the automobile is barred from running on the Island by an Act passed by our local Legislature at its last session, by the imperative and almost unanimous demand of farmers and

business men, and has been pronounced the best act ever passed by that body.

Now, Mr. Editor, the result has been surprising. Our roads and streets have been filled with teams drawing loads of produce to town, and bringing back merchandise of various kinds, with horses and buggies, on business or pleasure bent, and, best of all, the feeling of security enjoyed by all, added immensely to the enjoyment of a drive through our beautiful country. Every day during summer season one would meet wagon loads of tourists driving quietly along our roads, admiring the scenery, and invigorated by the pure and bracing atmosphere of the "Garden of the Gulf." This was a sight seldom seen when the auto held sway, although there were only a few running, yet one never knew when he would meet them. Now, according to observation by myself and others, the travel on our roads increased the past season by 50 to 75 per cent., and, on interviewing our dry-goods, grocery, boot-and-shoe men, etc., they unhesitatingly answered, in every case, that their trade had increased.

In the days of the auto, women that would venture to town to sell their butter and eggs, would put up the horse at the first stable they would reach, for fear of reaching one of these vile-smelling things, and carry their stuff to the market, often a good distance; and, to note the difference the past season, on market days the streets were filled with horses and carriages, without dread or anxiety. As I have often been one of the number, I can scarcely describe the feeling of security experienced. And yet, Mr. Editor, in the face of these undisputable facts, I noticed in one of our dailies that the owners of the autos are circulating petitions in some remote districts of the Island to have the Act repealed.

These gentlemen might as well save themselves the trouble, for not for years to come, at least, would our representatives dare to repeal that law, knowing full well that if they did, few of them would ever get a chance to warm the cushions on the seats in the big house. A. A. MOORE. Queen's Co., P. E. I.

Double Building on the Level vs. Basement Barn.

The very excellent description, with cuts, of plank-frame barn, by D. A. McIntyre, which appeared in our issue of Feb. 20th, 1908 (repeated in January 21st issue, 1909), has received favorable comment from many of our readers. The calculating member of our staff, among others, was impressed with the cheapness of the frame, and the question suggested itself to him, would it not be possible to dispense with basement walls altogether, and erect two buildings on the level, containing as much room, at but little greater cost than the basement barn described? The double building in mind consists of a byre (cattle stable) 40 by 55 ft., with 18-ft. posts, and set across the west end of this, and having roofs joined, a barn of the same size, 40 x 55 ft., with 18-ft. posts, having a drive floor 12 feet wide, and at one side of the floor a horse stable, 15 x 40 ft., on the other side a mow 28 x 40 ft.; both stable and byre to be covered by a loft at a height of 9 ft. Such a building would contain 25 per cent. more storage space (though perhaps not much greater capacity) than the basement barn in question (which was 40 ft. 4 in. x 68 ft. 4 in., with 18-ft. posts, and as much room for stock. The obvious advantages are that, with wooden, instead of masonry, walls, there would be drier and more healthful stables, and a lower overstructure, in which an effective ventilating system could be more cheaply installed; that the hauling-in and backing-out could be done on the level, instead of on a long, steep approach, and that the danger from windstorms would be lessened. In regard to the question as to the advantage of wooden over masonry walls for stables, it is noteworthy that pig-feeders quite generally agree that masonry walls are not satisfactory for piggens, being damp and chill. If not good for swine, why for cattle? In fact, not a few up-to-date dairymen object to basement stables, though there is no doubt they can be improved considerably by building with an air-space and lining with lumber.

In the calculation, the frame and siding lumber are reckoned at \$25 per thousand, and the sheathing, lofting and lining at \$15. This, while not so dear as pine lumber is in London, Ont., will probably be high enough for the country on the average. Mr. McIntyre's own figures as to material used in frame and other parts of the structure are taken as correct, and the same relative amounts are given for the supposed double building. Four bents were reckoned for the byre, and five for the barn. Care was taken to make calculations fairly, and not twisted to support a theory; and the fact that, according to them, a pair of buildings on the level, containing 25 per cent. more storage space, can be erected for only \$82.95 (or 7 per cent.) more than a single basement barn, gives occasion for thought and further estimation on the part of intending builders.

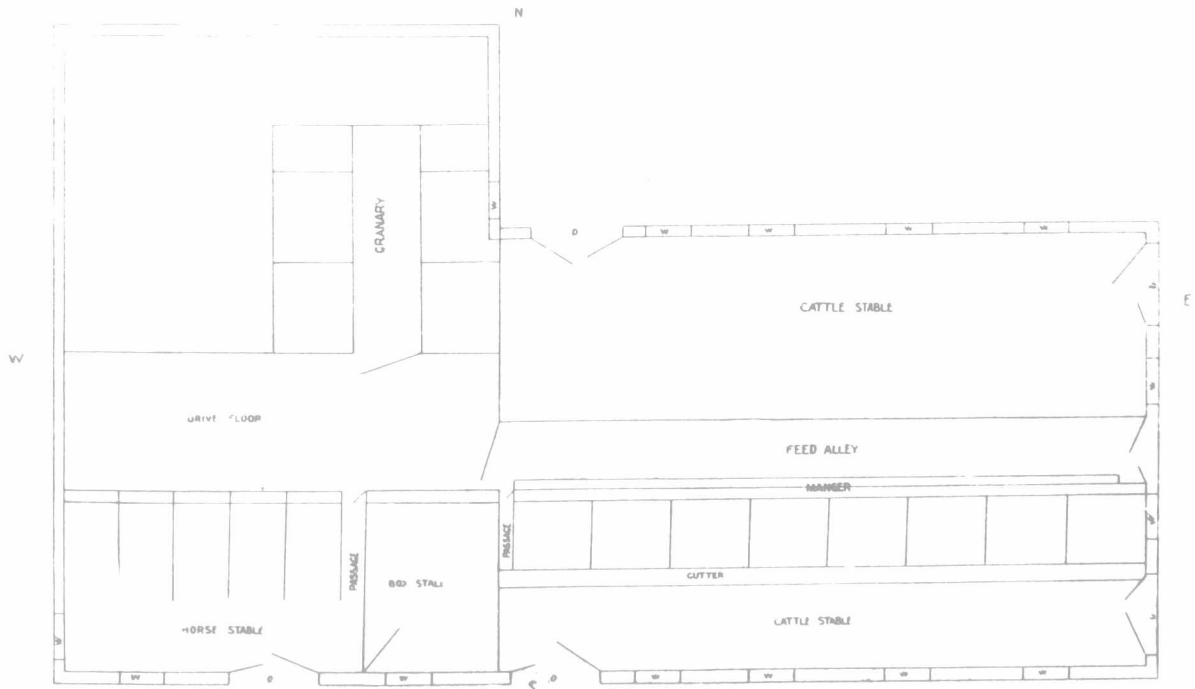


Fig. 1. Plan of Proposed Double Barn on Level.

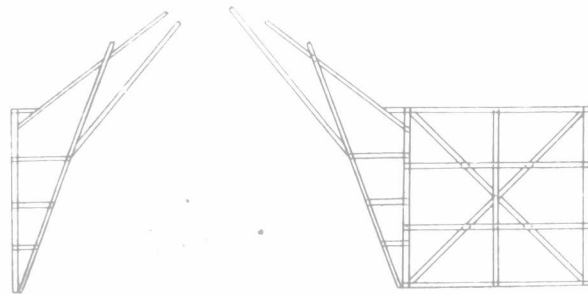


Fig. 2.

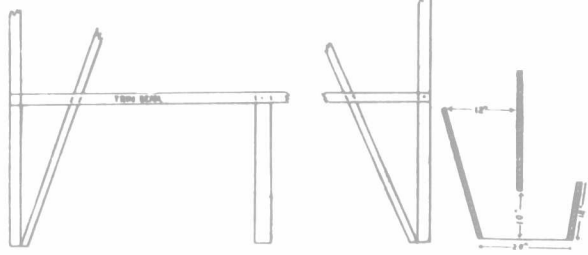


Fig. 3.

Fig. 5.

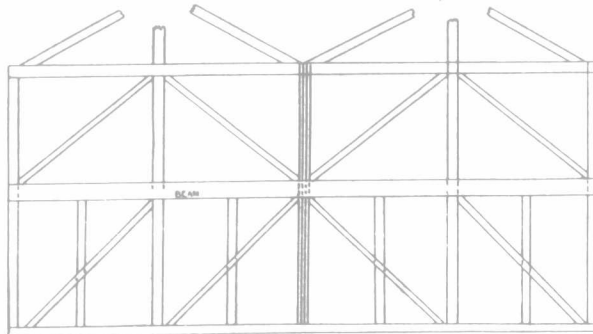


Fig. 4.

Estimated cost of D. A. McIntyre's basement barn:

Frame, two end bents, each 680 ft.	1,360 ft.
Three middle bents, each 630 ft.	1,890 "
Side girts, braces, and door caps	470 "
Purline plates	340 "
Wall plates	272 "
Tie girts	160 "
Center posts	180 "
Purline braces	180 "
Sills	648 "
Rafters	1,008 "
Total	6,508 ft.

Total, 6,508 ft., at \$25 per thousand	\$ 162.70
Flooring and sheathing, 7,060 ft., at \$15	105.90
Siding, 4,408 ft., at \$25	110.20
Shingles, 31,000, at \$2.75	85.25
Beams and joists for flooring, 3,000 ft., at \$25	75.00
Wall—Gravel and stone	50.00
—Cement, 51 barrels, at \$2	108.00
—Labor, 55 days, at \$1.75	96.25
Stable floor and fittings, say	200.00
Approach, retaining wall and bridge	50.00
Labor of carpenters for superstructure	120.00
Total	\$1,163.30

Estimated cost of double building set on the level:

Frame, four end bents, each 680 ft.	2,720 ft.
Five middle bents, each 630 ft.	3,150 "
Side girts, braces and door caps	630 "
Purline plates	550 "
Wall plates	440 "
Center posts	315 "
Purline braces	300 "
Sills for three sides of byre	450 "
Rafters	1,630 "
Total	10,185 ft.
Total, 10,185 ft., at \$25 per M.	\$ 254.60
Flooring and sheathing, 9,260 ft., at \$15	138.90
Siding, 6,150 ft., at \$25	153.75
Shingles, 50,000, at \$2.75	137.50
Beams, joists and supports for lofts	75.00
Inside boarding for byre and stable, 2,700 ft., at \$15	40.50
Tarred felt	10.00
Byre and stable floor, stalls, etc.	200.00
Foundation, concrete wall, one foot above ground on three sides of byre, and foundation pillars for barn	60.00
Labor of carpenter on building, exclusive of inside work of byre and stable	176.00
Total	\$1,246.25

Exceeds cost of basement barn by only \$82.95. Windows, doors and granary not reckoned in either calculation.

In the above proposed barn plan, minute details have not been worked out. It is assumed that there will be horse-fork track at the ridge of both byre and barn, and that in the barn, hay will be unloaded from the drive floor, while it would be taken into the byre loft through a door in the gable end. Thus, there would be hay stored above both horses and cattle, and at threshing time a considerable portion of the straw would also be put away in the byre loft. Probably not more than 25 per cent. of the fodder and bedding need be where it is not convenient for use, and, towards the end of winter, a day with the horse-fork or slings would put that right. In the case of those who have a truck for silage, it might be used to dispense dry roughage also. While it has been stated that the double building on the level contains 25 per cent. more storage space than the basement barn, it is not contended that much more could be packed into it, because so much of the space is of loft—9 feet to the plate. It is to be noted, however, that 40 per cent. of the total storage space is contained in the bay mow, which is the same depth as the mows in the basement barn. The intention was to suggest a size of double building having at least equal capacity for both stock and fodder. A much more economical one could, no doubt, be devised. For instance, by adding but one foot to the height of the byre building, its loft capacity would be increased by 10 per cent. or 12 per cent. It is not forgotten that when the building has to be reshingled it will take nearly 20,000 shingles more than the other, but that extra item of expense would not be an obstacle to many, in view of the advantages to be gained. Of late years, in Western Ontario, concrete-basement buildings have become deservedly popular, until now the natural tendency to go to extremes has made itself manifest. People have not only thought that they were the thing, but the only thing. In many cases, where old buildings are being made over, other ways are not only possible, but advisable. Other advantages than those mentioned might be spoken of. Suppose a farmer took a notion to keep a few sheep, how

easy it would be to fix up a pen for them in the mow of the barn suggested, at slight expense; while in the masonry basement it would be inconvenient or impracticable.

PLAN OF DOUBLE BUILDING.

The foregoing article and calculations being submitted to Mr. McIntyre, he expressed his opinion that the relative estimates of cost were substantially correct, though, suggesting that the allowance for carpenter work was perhaps a little high, while the estimate for some of the longer pieces of material was perhaps slightly under the mark. On the whole, the calculation appealed to him as fair and reasonable. Upon the subject of advantages and disadvantages, he referred to the durability of the concrete wall, and stated that he had not found the approach to his basement barn a very serious inconvenience. On the other hand, he recognized frankly the advantages set forth on behalf of the double building, and kindly offered to prepare drawings to illustrate the description of a double barn set on the level, and built with a plank frame. The cuts appearing in connection with this article were made from the drawings Mr. McIntyre submitted. The ground-floor plan shows the double barn in L shape, each section 40 x 55 feet. The cattle stable shows stalls for 16 head on the south side, allowing not quite 7 feet for each double stall. The pen on the north side could be used to run cattle loose in pens and box stalls. The horse stable shows five single stalls and one box stall, and is located in the south-west corner of the barn. The granary (not allowed for in estimate of cost) has a capacity of about 1,500 bushels, but has only one window. The hay mow, in the north end of this barn affords valuable protection from wind to both horse and cattle stables. In one of the figures, a diagram view of the manger is also shown.

MODIFICATIONS OF FRAME FOR DOUBLE BARN ON LEVEL.

Below are Mr. McIntyre's comments on the framing of the double barn, according to his own drawings.

Editor "The Farmer's Advocate":

Although the plank-frame barn is best adapted for a high foundation wall, still, with a few minor changes, it can be made to suit the low wall.

In building an L-shaped double barn and stable, one end bent of the stable can be built the same as the middle bents, and joined with and forming part of the side frame of the barn, thus reducing the cost considerably (see Fig. 2). The tie girt in the frame for high wall is in this frame removed, and its place taken by a trim beam to carry the overlays (Fig. 3). The trim beam can be made of three 2 x 10-inch planks, one passing between the two sections of the wall and the purline posts, and one on each outside face of same, and bolted through with 1/2-inch bolts, the beam to be supported with posts at such intervals as the plan of the stables will allow (see Fig. 3).

In case of a door being required in the gable end of stable, for hay-fork track, it would be necessary to do away with the top part of the center post. The bent could be strengthened by means of a beam, as described by Mr. Gilmore in your issue of Feb. 20th, 1908. See, also, photo, in your issue of Jan. 7th, of plank-frame barn built by the same man.

In the end bent it would also be necessary to have a beam to carry the overlays. It could be made by spiking 2 x 12-inch planks on both in and out side of posts, and supporting with short posts, as shown in Fig. 4. In the absence of collar girts, the purline posts could be braced, as shown in Fig. 4.

Lambton Co., Ont.

THE DAIRY

Depends on the Man.

Speaking at Brantford, C. C. James exhorted the dairyman to make all the money out of his business that he honestly could, reminding him, however, that after all the great secret was in the man and his equipment, and the person who would succeed in the dairy business must get down to the soil. Dairying isn't a simple matter. It takes more skill to turn the products of the air, water and soil into butter and cheese than is demanded by the most intricate manufacturing process in the City of Brantford. We must study the soil and the products of the soil, the animals and the products of the animals, and, finally, the making of butter and cheese. Could we increase the quantity and improve the quality of our crops, weed out the poor cows, take care of the milk and pay strict attention to the manufacturing processes, we'd catch some of those dollars we're chasing, and our dairy products would be worth 40, 50 and 60 millions of dollars, and this money being widely distributed and re-employed, would get into the channels of commerce and quicken business all around.

Dairy Test at Guelph.

Editor "The Farmer's Advocate":

I have been waiting, expecting you to correct your error in reporting the dairy tests at Guelph Winter Fair, last December. I cannot quite understand you people up West, the way some of you delight in boosting the Holstein cow. I suppose you are taking your cue from Professor Dean. In your report, in "The Farmer's Advocate," you give the Holstein cow credit with giving milk testing as high as 7 1/2 per cent. butter-fat. This is surely a mistake, and very unfair to the other competing breeds. And in your note on the exhibit of cows at dairy tests, a reader would be sure to take it for granted that the Holsteins were winners, all other breeds not being in it. Is it fair to look upon milk only as a correct test of a profitable cow? I think not. I also think that the Guelph Fair Board, assisted as they are by our Government, ought to set about at once to make this dairy test fair to all breeds, making butter-fat and solids, and cost of production, the test. The American people have for years been testing the profit value by butter-fat test, after counting the cost of feed consumed, as the proper way to find the best breed. At the Chicago and St. Louis World's Fairs, especially, this was done, and at both those fairs Jerseys came out conquerors. At St. Louis, in 1904, only one Holstein cow got in out of sixteen prizes.

Now, let us let in some light on the testing at Guelph, as between the best, first-prize Holstein, and the only Jersey, charging the cost of food consumed in their three day test. I think I can show that some of those Holsteins that took prizes did not pay their board bill while being tested by a butter-fat and solids test. I will take my figures and comparisons from a book issued by the St. Louis Fair Board of 1904. I might say here that the cost of the food for a three-days' test could be ascertained, as well as for a longer trial, if it were wanted, though, no doubt, nothing less than the whole year is a proper test. The figures I quote as correct, of the Guelph test, show that Mr. Haley's Holstein cow, first prize, gave 203 pounds of milk in three days, testing 3.7 per cent. butter-fat, producing 7.511 pounds butter-fat in three days, at, say, 30 cents per pound, \$2.25.

Mr. Bull's Jersey cow gave 130 pounds in three days, testing 4.7 per cent. butter-fat, producing 6.110 pounds butter-fat in three days, at 30 cents per pound, \$1.83.

Cost of food of Holstein cow: Meal, 22 pounds per day; three days, 66 pounds; at 1 1/2 cents per pound, 99 cents; 57 pounds per day other than meal for three days, 171 pounds; at 1/2 cent per pound, 85 cents; total cost, \$1.84.

Cost of food for Jersey: Meal, 17 1/2 pounds per day, for three days, 52 1/2 pounds; at 1 1/2 cents per pound, 78 1/2 cents; food other than meal, 37 pounds per day, for three days, 111 pounds; at 1/2 cent per pound, 55 1/2 cents; total, \$1.34 1/2.

Holstein—Three days' butter-fat, \$2.25; cost of food, \$1.84; profit, 41 cents.

Jersey—Three days' butter-fat, \$1.83; cost of food, \$1.34 1/2; profit, 49 cents.

Thus, you see, by even a three-days' correct test, where the Jersey stands; and if it was for a year, where would your best Holstein be? As I said, I have taken my figures of the food consumed from the amount of the two cows, Loretta D., first-prize Jersey cow at St. Louis Fair, and the fifth-prize Holstein cow, Shadybrook Gerben. Those weights I have used are the weights they each consumed per day; and if I had taken the fourth-prize Jersey cow, instead of Loretta D., I would have had 6 cents better showing per day. Also, if I had taken Mr. Rice's 2.56 and 2.9 per cent. butter-fat cows, I don't know where the Jersey would have stood. And my idea is that, from the poor test the lone Jersey made at Guelph (4.7 per cent.), she must have been overfed, which would reduce her test. I don't believe I have a Jersey in my herd that tests as low as 4.7. I had an expert from the College test my herd last year, and he made them to average 5.9 per cent. butter-fat.

T. PORTER,
York Co., Ont.

[Note.—Our correspondent is himself in error, in stating that our report gave the butter-fat percentage of the winning cow as 7.59, as our report was copied from the official statement of the test, and it was plainly shown that these figures represented the pounds of butter-fat, not the percentage, which, when the pounds of milk and butter-fat are given, is easily ascertainable, and which, in the case of Mr. Haley's Holstein cow, was 3.7 per cent., and in the case of the Jersey cow 4.7 per cent. And, in fact, in our comment on the test, we stated that the percentage of fat of the winning cow was 3.73. The charge that we favor the Holsteins is scarcely fair, in view of the fact that we have published in the columns, in the last few months, a number of the world's highest records of production of Jersey cows. We quite agree with Mr. Porter that the "correct" test is one in which the amount and cost of feed consumed is taken into account. For we are not "running the show," and our main object we should be held responsible for the test in which the test is conducted.]

Average \$82.32 per Cow.

Editor "The Farmer's Advocate":

Replying to your request for particulars as to how our herd was handled, which obtained a standing of sixth place in the dairy-herd competition, I may say that, as we had no intention of entering the competition until October, our herd were not cared for nor fed as they otherwise would have been. Our herd consisted of eight head, five cows, and one three-year-old and two two-year-old heifers, five being pure-bred and three grade Holsteins. We sent to the Mount Pleasant cheese factory, from May 1st to October 31st, 48,740 pounds of milk, or an average of 6,090 pounds each. The total amount of money received was \$445.82, or an average of \$74.30 per month, making an average of \$9.30 per cow each month. From their dates of freshening until December 31st, the herd have averaged a fraction better than 9,000 pounds each, or a total of 72,002 pounds.

The average price per cwt. of milk was 91.47 cents; 72,002 pounds milk, at 91.47 cents, would net me \$658.60 for the season, or an average of \$82.32 per cow. One of our cows did not freshen until May 24th, which, of course, lessened our amount of milk for the test, as we had only the seven cows through May, while we were charged with eight. In regard to feed and care, I would say that, as soon after freshening as circumstances would permit, they were fed two quarts oat and pea meal, one quart bran, one pint oil cake, from 15 to 20 pounds pulped mangels twice each day, and what mixed hay or fodder corn they would clean up nicely three times daily, until they went on the pasture, when they were fed nothing but one quart of oat and barley meal each morning and night, until Sept. 21st. Then we commenced feeding fodder corn once a day, until September 28th, when they were put in the stable and fed what fodder they needed, with the same ration of meal and a few roots; and thus they are yet, and will continue until freshening again. Through the winter we feed oat straw for the noon meal, and they seem to relish the change. We have neither a silo nor alfalfa as yet, but intend trying for a stand of nine acres of alfalfa this spring.

FRED V. WOODLEY,
Norfolk Co., Ont.

Dairying in Brockville District.

Editor "The Farmer's Advocate":

North Augusta Cheese Factory last season ran only from May 1st until November 1st. Owing to the extreme drouth in this section of country, the milk flow decreased at a rapid rate towards the latter part of the season. Farmers had to commence feeding their stock in August, and continued the remainder of the fall; and for that reason a great many cattle were sold, some going to the butcher's block, and more as canners. The former were not in it condition for beef, but they answered the purpose, on account of the low price they were purchased for. Beef should be beef; canners should be canners; and, until farmers learn to make first-class beef, they will not raise the standard of farming in this country to the level it ought to occupy.

On account of the dairy herds being lessened in number to correspond with the feeds in the barns, we will certainly look forward to the springtime, when those dairy cattle which are left will sally forth from their winter quarters, looking fat, sleek and contented, feeling that they have been well cared for, and ready to respond in the milk pail from 25 to 40 per cent. better than they have ever done before.

Remember, brother farmers, they will do this, without a doubt, if you will see to it that they get all the feed they can consume; and why should they not? In the Brockville district, the dairy cow is our stand-by. She is the queen of our farms the mortgage-lifter of the present day.

How could we be expected to do the work we have to do if we were only half-fed. By all means feed your cows.

Now is the time to feed the rough feeds, if you have any, such as straw, marsh hay, etc., as the cows have been let go dry, and, towards spring, when they will be coming into milk again, you must have the best feed around the place to give them, for it is the feed that counts.

I was talking to a neighbor the other day, who said, when his brother was around home, a couple of years ago, he wanted him to sell all the cows they had and buy good ones, but he said no; he believed they were good cows, if they were properly cared for. The brother went away, and, for the last two years, by keeping fewer cows, and feeding them better, he has increased the flow of milk 20 per cent., and has six cows lower than they then had, so you see from that what feed will do.

Also, a word of warning against turning cattle out on a warm stable and letting them stand for hours on the sunny side of the barn, chilled and humped up with the cold. This thing is done by a great many farmers, and should be discouraged, as it is positively detrimental to the animal. If you have to let them out to clean

the stables, do not leave them out a minute longer than is necessary.

The statement of North Augusta Cheese factory for the season of 1908 shows: Total pounds of milk delivered, 1,479,263; total number pounds of cheese, 135,455; total money, \$16,071.97; average price per pound of cheese, 11.88 cents; average number pounds milk for one pound of cheese, 10.92; average price paid per ton \$19.60; cost of manufacturing, per pound, 1 1/2 cents.

Grenville Co., Ont. W. B. MOFFATT.

A dairyman gives the following as a safe rule to follow when selecting a dairy cow: "Choose, first of all, a good type—deep body, large heart-girth, firm abdominal wall, indicative of good constitution. Then look for a well-balanced udder, well forward and up behind, giving great length of attachment to the body, and good, squarely-placed teats."

POULTRY.

A Boy's Poultry Experience.

Editor "The Farmer's Advocate":

My father takes "The Farmer's Advocate," and I think I get as much good out of it as he does. I am greatly interested in the Poultry Department.

My poultry house is 10 x 15, boarded on studding inside and out, and filled with straw between. There are two windows in the south side, 3 x 3, one being cotton, and one glass. The door is in the west end. The ceiling is boards, laid with a space between them, and straw overhead; this keeps everything dry. There has never been any frost on the glass this winter. The cotton window gives plenty of fresh air, and the straw overhead absorbs the moisture. It is very cold sometimes here, but the fowls are always lively and healthy. The roof is peaked, and shingled with cull shingles. There is no cornice on the ends of the rafters, and the space is not filled in between the rafters, where it rests on the studding under the eaves on each side. This is a good place for the escape of bad air that comes up through the straw.

In the morning the chickens get a good feed of oats, well scattered in the litter. This keeps them scratching most of the morning. At noon they get a hot mash or a feed of chopped vegetables, consisting of turnips, cabbage, small potatoes, or any other vegetables that are handy; these are all chopped fine. The fowls like this, and eat it greedily. Sometimes a little charcoal is good, or some good poultry food. At night they have been getting oats and peas, but the peas are not good for them, being too fattening. I intend feeding wheat after this, but it is rather dear here. They get fresh water, with the chill taken off, three times daily. I always try to keep grit before them. I can get it here at all times of the year, out of the bed of a stream. I have eight Plymouth Rock pullets and one cockerel in this pen. Hoping you will be able to find space for my first letter to "The Farmer's Advocate, and wishing it every success.

Bruce Co., Ont. FARMER'S SON.

Methods and Results in 1908.

Editor "The Farmer's Advocate":

Our poultry house is built in lean-to style, south of our hogpen, the stone wall of which forms the north wall for the henhouse. There is one long window, made up of small panes of glass, extending about two-thirds of the length of the building. A door communicates with the hogpen, to which the hens have access at all times of the day. It provides a good recreation ground, and is roomy and warm. The nests are mostly built on the ledge of stone wall, in the hogpen. At night, the chickens are shut up in their own house, and generally fed there, their grain being scattered in the straw on the floor, thus affording them healthful exercise. We feed them three times a day. In the morning their feed was generally grain; barley, oats or peas were the grains fed, and never the same twice in succession. At noon we sometimes gave a hot mash of boiled potatoes and mixed chop, of which they were very fond. We had some buckwheat in the shed, and threw them a couple of these to keep them busy in the afternoons. At night we fed them grain again, different to that of the morning feed. Besides this, they were given mangels every day. Ashes and sand were before them at all times. We also gave them a little oyster shell every morning. We kept the roosts and nests sprayed with a mixture half coal oil and half of a liquid lice-killer, and this kept them practically free from vermin. For drink, they were kept supplied with clean water, and all the sweet milk we could spare them.

We commenced 1908 with 75 pullets, having killed all our old hens. Forty of these pullets were hatched May 6th, 1907, and the remainder Nov 28th, 1907. They were incubator

chicks hatched and raised with a hot-water incubator and brooder. They commenced laying the middle of January, 1908, and below we give the monthly egg receipts for the year:

January, 7 1/2 dozen; February, 58 1-6 dozen; March, 109 1-6 dozen; April, 127 1/2 dozen; May, 123 1/2 dozen; June, 96 1/2 dozen; July, 98 1/2 dozen; August, 83 1/2 dozen; September, 74 dozen; October, 11 dozen; November, 7 dozen; December, 13 dozen—making a total for the year of 812 1/2 dozen.

The proceeds of those sold amounted to \$140.07, besides the eggs used for home consumption. As we kept no record of the cost of feed, we cannot say just how much was profit, but do not think we would be overestimating to say at least half was clear. Owing to the better prices, our winter eggs paid much better than the summer eggs, but, of course, they also cost more, as hens find a great deal of their feed in summer.

March was our best month for cash, as the eggs sold realized \$25.

Besides our egg receipts, we sold chickens to the value of \$120, and kept over 30 young pullets; so our poultry receipts for the year, including value of pullets kept, would at least total \$275. This year we intend keeping about 100 hens. Our hens are all Barred Plymouth Rocks, not pure, but a very good strain. We are keeping a record again this year.

Ontario Co., Ont. AN AMATEUR.

A P. E Island Flock Record.

Editor "The Farmer's Advocate":

As you are asking for reports from farmers' poultry flocks, I will give you ours. In 1908 we kept about 85 hens, in two flocks. Size of houses are: First one, 12 x 30, with 50 hens; second one, 15 x 15, with 35 hens. Our favorite breed is the Buff Leghorn, some pure-bred, and some three-quarters-bred. They laid all the year, to the amount of \$135 worth, the average price received being 17 2-3 cents per dozen. About 90 chickens were raised, 45 pullets and 45 cockerels. The pullets we value at 35 cents each, which amounts to \$15.75, and the cockerels at 25 cents each, \$11.25. Total, \$27.00. Amount of feed consumed during year was, 150 bushels oats, at 50 cents, \$75; 25 bushels of wheat, at \$1, \$25; 40 bushels small potatoes, at 23 cents, \$9.20; together with some bread and oatmeal fed to chickens, amounting to \$2, which makes \$112, and leaves a profit of \$50. We consider \$50 profit, together with the manure, very fair remuneration for labor expended, as the work is very light and easy to perform. The houses were not up-to-date, there being only two small windows in each house, and no ventilation, except by door. There was a floor in smaller house; the other had none. No difference was noticed in health of birds or number of eggs laid. This year we have a new house, 13 x 30 x 7, and are feeding 125 in one flock, which is much easier and, by paying more attention to ventilation, feeding and caring for birds, hope to get better returns, with less labor. Eggs are selling now in our market town of Summerside at 25 cents per dozen, and seldom get above that during the winter, so, you see, we will have to be content with small prices until we get the tunnel and can send them to large cities on the mainland. And yet we farmers think that hens pay as well as any other live stock, and often get worse treatment, too. Not long ago I heard a farmer boasting about his egg receipts, and I ventured to ask him how often he cleaned the henhouse. "Not until spring," he said, which means every six months. If hens were only given a chance, kept free from vermin, given exercise by scratching for their grain among clean straw, supplied with gravel, broken oyster-shells, skim milk, water, and as varied a diet as possible, greater profits would be forthcoming. JAMES STAVERT.

Prince Co., P. E. I.

GARDEN & ORCHARD.

Apple-growing in Peel County.

Editor "The Farmer's Advocate":

I have lately become rather interested in our orchards. There are a few questions I would like to have answered, to see if there is really any reason for so many of our orchards being so sadly neglected.

1. Has it been proved at any time that apples can be grown as a profitable crop in the climate such as we have through the northern part of the Counties of Halton, Peel and York? Or, is the climate of the southern counties much better for this crop?

2. What particular varieties thrive best in these counties, and what varieties would be the most salable?

3. What percentage of our apples are exported to the Old Country, and what per cent. consumed at home?

4. Is it the best grades that are sent away, the culls being consumed at home?

5. What is the average price per barrel that farmers receive?

6. Are there any of our pears shipped to the Old Country?

7. Will they ever be able to grow apples, pears and such fruit in the Northwest, this side of British Columbia?

8. Would you give a rough outline of what you would consider the proper way of caring for an orchard?

Peel Co., Ont. J. C.

Ans.—1. I believe it has been proven many times over that the very best varieties of apples can be successfully and profitably grown in the section of the country you mention. I have at various times judged the fruit exhibits at fall fairs in these counties, and am sure, from what I have seen, that as good apples can be grown in the northern parts of Halton, Peel and York as in almost any section of the Province. No doubt, nearer the lake, in the southern sections of these counties, the crop may be more certain, on account of less liability of the blossoms to be injured by late spring frosts; but these occur so rarely that this is a matter which need hardly be considered by growers who cannot all be located along the lake-front.

2. The climate in that section of the country will permit of all the best varieties being grown. It is well, however, not to grow too many varieties in a commercial orchard. The list might, as a rule, be narrowed down to a half dozen of the leading varieties, such as Northern Spy, Baldwin, Greening, King, Ribston, and Blenheim. No doubt, many would wish to include in such list the much-discussed Ben Davis, but we believe that, although this variety has been a very profitable one, the markets of the future will be more discriminating, and demand only those varieties of the best quality, and for this reason we think it would not be well to plant too largely of varieties of such inferior quality as Ben Davis.

3. I am unable to say just what percentage of the apples in these counties is exported, and what is used locally. I am inclined to believe that at present more is used locally than is exported, from the fact that commercial orcharding has not been given the attention in this district that it should have.

4. Where the apple crop has been sold by the barrel, only the best grade of apples is taken by the buyer, and the culls left for home consumption. Unfortunately for the reputation of the Canadian apple trade, this practice has not been adhered to as strictly as it should have been, for, in many cases, where the crop is bought on the trees, as is often the case, little or no culling is done, and the good and worthless apples are shipped out in the same barrel, which discredits Canadian apples generally when they appear upon a foreign market. This method of buying and shipping has done more to injure the Canadian apple trade than anything else that could be mentioned.

5. The price usually received by the farmer from the apple-buyers when the crop is purchased either on the tree or by the barrel varies from 50 cents to \$1.00 per barrel. Usually, when bought by the barrel, the latter figure has been the prevailing one; whereas, I know of growers who have been shipping and selling through the co-operative associations in the northern part of Halton County, having obtained between \$2 and \$3 per barrel. The sooner apple-growers realize that the most successful way of marketing the apple crop is through a co-operative association, the sooner will they receive full value for the fruit, and the sooner will apple-growing be recognized as one of the most profitable industries.

6. There have been a number of successful attempts to ship pears from Ontario to the Old Country market, but so far the export in pears has not increased largely. There is no doubt that, when picked at the right stage of maturity and carefully packed, pears can be successfully placed in the Old Country markets; but the tendency of this fruit to ripen in shipment makes the business much more precarious than apple-shipment. Nevertheless, we believe that in time pears will be much more largely shipped from here to the Old Country than at present.

7. It would be unwise for a "tenderfoot" to prophesy as to the possibilities or otherwise of fruit-growing in the Northwest. There is no doubt, however, that there is a vast extent of country in the Northwest where fruit of this kind will never be grown, although there are possibly sections in Alberta, near the foothills, where fruit may in time be more or less extensively cultivated. The reports of recent trials made in various parts of Alberta indicate that fruit may be grown there when the conditions suitable for fruit-growing in that district are better understood; but I believe that for many years to come the Ontario grower will have a splendid market for fruit in the Northwest, unless, through neglect of the opportunity now offered, he is excluded from that market by competition from British Columbia and adjoining American States.

8. The proper management of an apple orchard

might be briefly summarized under the following headings:

1. Thorough cultivation.
2. Maintaining soil fertility.
3. Regular pruning.
4. Intelligent and thorough spraying.

These and many other points in connection with orchard management are more or less fully discussed in Bulletin No. 144 of the Ontario Agricultural College on "Apple Culture," to which I would refer you. Copies of this bulletin may be had on application to the Department of Agriculture at Toronto. H. L. HUTT.
O. A. C.

Brown-tail Moth.

Canadians should be able to identify the Brown-tail moth, which has done such enormous damage in various parts of the United States. Nova Scotians, too, are acquainted with the pest. Recent reports indicate that New York orchardists have found specimens on nursery stock. There is a danger that Canadian orchardists who plant trees imported from across the line may have a similar experience to that of their neighbors in New York State.

The winter nests can easily be recognized. The winter is passed as young caterpillars, which form colonies at the tips of the branches of the trees on which they fed the previous season. Eggs laid in July develop into half-grown caterpillars, about $\frac{1}{4}$ of an inch long, black in color, covered with rusty hairs, and having on the 10th and 11th segments, towards the end of the body, two very conspicuous reddish-yellow, cushion-like tubercles. The nest is readily seen, because the colony is enclosed in leaves on the tip of the branch.

The adult insect is a moth similar to the adult of the fall webworm, white in color except the tip of the body, which is brown. The female has at the tip of the body an almost globular tuft of hairs. Both sexes fly freely, and are attracted by lights.

Egg masses, two-thirds of an inch long, and one-quarter of an inch wide, and covered with silky brown hairs, are laid on the under surface of the leaves during July. Although the young caterpillars do little damage before winter comes, they are very destructive when they emerge from their winter shelter the following spring, when the buds have opened. Remedy consists in collection and destruction of egg masses before the buds burst in spring. If this is not done carefully, the only resort is to the use of poisonous spraying mixtures.

THE FARM BULLETIN

To Our Club-raisers.

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

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

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

Premiums not included in club offers.

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

British Shows for 1909.

- February 10—Glasgow Stallion Show.
- February 23 to 26—Shire Horse Show, London.
- March 3 to 5—Hackney Horse Society's Show, London.
- May 26 to 31—Bath and West of England Show, Exeter.
- June 5 to 15—International Horse Show, Olympia, London.
- June 22 to 26—Royal Agricultural Society's Show, Gloucester.
- July 20 to 23—Highland Society's Show, Stirling.
- December 6 to 10—Smithfield Club Show, London.

Forthcoming Events.

- Feb. 4th.—Annual meeting of Canadian Jersey Cattle Club, Walker House, Toronto.
- Feb. 4th.—Canadian Holstein Breeders' annual meeting, 9 a.m., in Association Hall, corner Yonge and McGill Streets, Toronto.
- Feb. 4th and 5th.—Annual convention of Canadian Seed-growers' Association in Ottawa.
- Feb. 5th, 9.30 a.m.—Annual meeting, Ontario Sheep-breeders' Association, Temple Building, Toronto.
- Feb. 5th, 1.30 p.m.—Annual meeting, Dominion Sheep-breeders' Association, Temple Building, Toronto.
- Feb. 10th and 11th.—Ontario Fairs Association, City Hall, Toronto.

Manitoba Winter Fair.

The programme for the Winter Fair, to be held at Brandon, Man., on March 9th to 12th, shows that a great treat is in store for those who can attend. In addition to the display of live stock and farm crops, there will be judging competitions and addresses by such men as Prof. D. A. Gaumnitz, Assistant in Animal Husbandry at Minnesota Agricultural College; Dr. J. G. Rutherford, Dominion Live-stock Commissioner, Ottawa, and others well known to Western audiences.



Jack Canuck is Beginning to Take Notice.

To Test Milking Machine.

The Dairymen's Association of Manitoba have prepared an elaborate programme for their annual convention at Manitoba Agricultural College, Winnipeg, on February 17th and 18th. In addition to addresses by such dairy experts as Prof. T. L. Haecker, of St. Anthony's Park, Minn., Prof. J. H. Shepperd, of Fargo, N.D., and J. A. Ruddick, of Ottawa, there will be a practical demonstration in milking cows with a milking machine.

One of the Requisites.

Enclosed please find \$1.50, my subscription to "The Farmer's Advocate" for 1909. We have gone exclusively into farming, and appreciate your paper very much; consider it one of the indispensable articles in connection with successful farming. It has no equal that I know of in agricultural literature. E. J. JACKSON.
Bruce Co., Ont.

An outbreak of hog cholera has been recently discovered among a herd of 30 hogs belonging to a market gardener at Fairbank, just north of Toronto. The entire herd has been destroyed, and the premises placed under a three-months' quarantine, during which time the owner will not be allowed to have a pig on the place.

A free course in stock and seed judging has been arranged by E. C. Hart, B.S.A., of the Galt Collegiate Institute, to be held at AYF, Ont., February 8th, 9th and 10th. Mr. Hart will have the assistance of President Croelman, and Professors G. E. Day, C. A. Zavitz, R. Harcourt and J. H. Reed, of Ontario Agricultural College, and E. G. Raynor, of Ottawa.

Your paper is read every week by everyone in the house, and is a good paper to read, with some common sense and good advice on all matters pertaining to farming and everything else. I first read it in 1867 and have taken it nearly ever since, and find it one of the best household papers. J. W. B. COLEMAN, M. LEAF AND SONS, BRUCE CO., ONT.

Education by Institutes.

That all Farmers' Institutes in Ontario have not outlived their days of usefulness, was amply proven at a gathering at Wilton Grove, Middlesex County, recently, when a representative of "The Farmer's Advocate" chanced to be privileged to attend. Sessions were held afternoon and evening. The speakers supplied by the Provincial Department of Agriculture were: Miss Susie Campbell, of Brampton; W. F. Kydd, of Simcoe; and R. R. Elliott, of Owen Sound. At the evening meeting, variety was made in the programme by a chorus by the church choir, songs and music by local talent, and short addresses by Jas. H. Wheaton, of Thorndale, Secretary for the Institutes of East Middlesex; and Jas. McCrae, one of the officials of a local literary society, that is doing great work in training the boys and girls. The chair was occupied by David Lawson, of Hubrey.

Progressiveness was in evidence on every hand. An attendance of over 80 enthusiastic farmers and their sons in the afternoon, and almost double that number, made up of men and women, boys and girls, at the evening session, showed the interest taken in educational work. A noteworthy feature was that the boys, instead of collecting in a corner at the rear, to cause disturbance, were in the front seats, evidently as much interested as the older people.

Arrangements had been made for the women to meet in a separate room in the afternoon, and Miss Campbell succeeded in organizing a Women's Institute. After the object and aims of such organizations had been clearly outlined, it was voted unanimously to form an Institute. Every lady present became a member, and it was decided to hold a meeting the first Thursday in March. Many topics of interest to women were discussed briefly. Mrs. McCrae suggested that something should be done whereby the older boys and girls of rural districts should be privileged to go to public school during the winter months, to pursue work that would aid them in business and social matters.

AFTERNOON SESSION.

Horses and dairy cattle were fully discussed in many particulars at the afternoon meeting. Those in attendance who did not learn something worth while regarding horses, and particularly their feet and legs, or who were not sufficiently interested to cause them to make a careful study of this worthy class of live stock, cannot be depended on to further the interest of agriculture to any great extent. Digests of the addresses given by Messrs. Kydd and Elliott, and the discussions in connection, will appear in a later issue of "The Farmer's Advocate."

EVENING MEETING.

"Dropped Stitches" was the topic of a brief talk by Mr. Kydd at the evening meeting. Lack of enthusiastic loyalty was regrettable. But, in farming operations, there were such dropped stitches as lack of ability to tell a horse's age by looking at his teeth, and neglect of horses' mouths. Chief among the dropped stitches, however, was the absence of co-operative associations. Middlesex ranked second among the counties of Ontario in acres devoted to orchard. There were over 16,000 acres in fruit, and yet few were making great profits from fruit-growing. The systems in vogue in Hood River District, Oregon, U. S. A., and in Norfolk Co., Ont., whereby high prices were obtained, were referred to. There, only first-class fruit was put up in boxes or barrels, and buyers came long distances to get it, because they knew the quality was right.

Improvement should be the aim in any line. On the farm, every son and every daughter should strive to do better than his or her parents had done. Reading, and a study of soil and crop conditions, as well as of live stock, were essential to progress.

The importance of home, and the influences that could be brought to bear by man and woman, were discussed by Miss Campbell. Women were said to be contradictory creatures. They could go crazy over "Merry Widow" hats, and also do duty at a sick bed. As to voting, it was almost a certainty that women would vote for the best-looking man. Both men and women should be careful about what they say and do. The younger people learned from the older, and bad habits or evil words were most readily acquired. Gossiping was referred to as one of the greatest evils of present-day society. Grumblers, too, had an evil influence in any community, or in organizations.

Co-operation in the home, whereby the housewife would get her share of labor-saving machinery, was something that would do much to make the home what it should be. Too many farmers spent all their time and most of their cash devising schemes whereby steps would be saved in the barn, and neglecting the house and its surroundings.

R. R. Elliott spoke of the effect of the Farmers' Institutes and the Women's Institutes in raising rural life to a higher level.

In beautifying school grounds, much remained to be done. Prizes at fall fairs for collections of plants, weed seeds, or hand-sorted seed grain, were advocated. With the numerous agencies at work for good, a great improvement should be recorded during the next few years. A writer in "The Farmer's Advocate" had asked whether Farmers' Institutes had not outlived their usefulness. His opinion was that they had not; that only the fringe of agricultural problems had been touched.

Tree-planting around the homes was advised. Forests were being cut down, giving the winds free sweep, lessening the rainfall, and lowering the water-level of lakes, rivers and wells. By keeping live stock out of present wooded areas, and by planting rough land to trees, much could be done to improve conditions.

A hearty vote of thanks was tendered the speakers and others who had assisted in making the meeting a success. It was unanimously proclaimed the best ever held in the district.

A World's Butter Record.

The Jersey cow, Jacoba Irene 146143, whose portrait appears on this page, is reported as having finished a record of butter production for two years, December 11th, 1906, to January 24th, 1909—dry 45 days—unequaled by any cow of any breed, her milk production being 31,505 lbs. 9.6 ozs.; butter-fat, 1,744 lbs. 13.4 ozs.; butter (85 per cent. fat), 2,053 lbs. 15.3 ozs. Her record for the year ending Jan. 24th, 1909, under the rules of the American Jersey Cattle Club, authenticated by Illinois Experiment Station, is: Milk, 17,253 lbs. 3.2 ozs.; butter-fat, 954 lbs. 2.4 ozs.; butter (85 per cent. fat), 1,122 lbs. 9.3 ozs. In the last three successive years she has produced 42,064 lbs. 14.4 ozs. milk, 2,332 lbs. 3.4 ozs. butter-fat, and 2,745 lbs. 4.9 ozs. butter (85% fat). Her average butter-fat test for the year 1908 was 5.53 per cent. She has, in addition, dropped her owner a healthy, living calf each year, and is said to be safe in calf again. The value of the butter product of this cow for the year ending Jan. 24th, 1909, at 30 cents per pound, amounts to \$336.82, and her skim milk and buttermilk, at 20 cents per 100 lbs., comes to \$32.60, making the total value of her product for the year \$369.42. Her best day's milk is given as 69.8 pounds; best seven days' milk, 467.5 pounds; best seven days' butter, estimate 29.3 pounds, 85 per cent. fat.

Fraud in Horse Registration.

Judging from the outcome of the first prosecution for improper registration of stock, the Canadian records soon will be free from names of animals not entitled to be registered. A case against W. B. Williamson, a horse dealer, of Toronto, which has been under consideration for over two years, recently was sifted out at Toronto.

The directors of the Clydesdale Horse-breeders' Association, hearing allegations that a mare, Jane Austin, had been improperly registered, took steps to locate the guilty party. A detective was given charge of the case, and soon direct evidence was secured to prove what those in charge of the records believed to be the case.

The conviction of Williamson should serve as a warning to all dealers in pure-bred stock, and to those who have stock registered from time to time. Other cases of a similar nature are promised for the near future. The indications are that the public will be properly protected in future as regards the purchase of breeding stock.

Government Aid to Agriculture.

The December issue of Census and Statistics Monthly summarizes the appropriations in aid of agriculture in Canada, for 1908, as follows:

Domion appropriations	\$1,053,000.00
Provincial appropriations:	
Ontario	747,970.00
Quebec	261,300.00
Nova Scotia	68,700.00
New Brunswick	35,465.00
Prince Edward Island	9,528.78
Manitoba	94,700.00
Saskatchewan	224,889.00
Alberta	162,764.50
British Columbia	31,980.00
Grand total	\$2,690,297.28

Rural Mounted Police Idea Endorsed.

At the annual meeting of the Cobourg Central Agricultural Society, your editorials regarding rural mounted police in the Province of Ontario was endorsed with unanimity, and their delegate to the annual Fairs Association meeting, to be held in Toronto on the 10th and 11th of February, was instructed to bring the matter up for discussion. A. J. RESSELL, Newberland Co., Ont.

Urging Removal of Sheep Quarantine.

A petition is being circulated among Canadian sheep-breeders, urging upon the Dominion Minister of Agriculture the desirability and importance of endeavoring to secure early removal of the American quarantine of 30 days against Canadian sheep. As a result of the imposition of the present regulations, on June 15th, 1908, it is stated that the leading Canadian breeders have suffered a loss of 90 per cent. of their business. The petitioners request the Dominion Government to make every effort possible to rid the country of the contagious disease (scab) which the American Secretary of Agriculture claims we are harboring, and which, it is admitted, has existed to a limited extent in certain parts of Ontario. Unhindered access to the American market is declared to be of utmost importance to the breeders of pure-bred sheep in Canada, which should be to the Western Hemisphere what England has been to the world in the production of pure-bred stock.

Canadian National Directors.

At the annual meeting of the Canadian National Exhibition Association, held in Toronto last week, the following were elected directors for this year: Agricultural Section—Hon. John Dryden, Messrs. Robert Fleming, H. R. Frankland, John G. Kent, Samuel McBride, W. J. Stark, Thomas A. Graham, Claremont, and Robert Miller, Stouffville. Manufacturers' Section—Messrs. George Booth, S. E. Briggs, C. A. B. Brown, John A. Cooper, W. K. George, George H. Gooderham, Noel Marshall, and W. K. McNaught, M. P. P. At a meeting of the directors, Mr. G. H. Gooderham was elected president.



Jacoba Irene. Jersey cow; claimed to have scored a world's record of butter-production. Owned by A. O. Auten, Illinois.

Fruit-growers Prepare Plans.

Enthusiasm prevails among the fruit-growers of Niagara peninsula, and, with such organization as now exists, the tendency is to hold out for just treatment from express companies and others who have to do with the handling of the products of the gardens and orchards. At the meeting of the Niagara Peninsula Fruit-growers' Association, held in St. Catharines last week, officers and committees for 1909 were appointed as follows: President, W. H. Bunting, St. Catharines, Ont.; 1st Vice-President, E. D. Smith, Winona, Ont., for County of Wentworth; 2nd Vice-Pres., Robt. Thompson, St. Catharines, for County of Lincoln; 3rd Vice-Pres., W. M. Hendershot, Thorold, for County of Welland; Secretary-Treasurer, C. E. Fisher, St. Catharines.

Directors were elected, representing the various sections by townships.

Express and Freight Committee.—Wm. H. Bunting, E. D. Smith; A. E. Kimmins, Winona; J. W. Smith, Winona; F. A. Goring, Homer; Murray Pettit, Winona; W. M. Hendershot, Thorold; J. M. Metcalf, Grimsby; H. Fleming, Grimsby; T. H. P. Carpenter, Winona; E. L. Jemmett, Beamsville; Robert Thompson, St. Catharines; W. B. Bridgman, Winona; J. W. Brennan, Vineland.

Entertainment Committee re Pomological Society Convention.—Murray Pettit, Robt. Thompson; A. H. Pettit, Grimsby; W. H. Bunting; H. L. Roberts, Grimsby; W. M. Hendershot; C. E. Fisher, St. Catharines.

Experimental Spraying Committee.—J. W. Smith, Winona; W. C. McCalla, St. Catharines; Robt. Thompson; J. W. Tweddle, Fruitland.

and H. S. Feart, Experimental Farm, Jordan Harbor.

Government Grant Committee.—E. D. Smith, W. H. Bunting, C. E. Fisher, F. A. Goring, W. M. Hendershot, W. B. Burgoyne, St. Catharines, with power to add to their number.

County Grants Committee.—W. H. Bunting, F. A. Goring, C. B. Hare, St. Catharines, and C. E. Fisher.

Foot-and-mouth Disease Quarantine Ameliorated.

It was announced from Ottawa, on January 29th, that the cattle quarantine, imposed as a result of the outbreak of foot-and-mouth disease in the United States, had been relaxed to the extent of allowing hides, horns, meat, straw and hay from the United States to come in, so long as the origin was not one of the six quarantined States. This sort of freight is now allowed to enter Canada after passing through the affected States, providing it is in closed cars. On the same day, despatches from Niagara Falls, Ont., stated that customs officials at the Canadian end of the international bridges were notified that the embargo against horses and every living animal, except cattle, had been raised. Of late, certain modifications had been made to the embargo, which at first was very rigid, excluding vehicles of all kinds and all animals.

Agriculture in Orkney Islands.

Editor "The Farmer's Advocate":

Favorable weather in the early months of 1908 was the means of enabling farmers to get well through with their winter plowing, so that when fine weather came the end of March and first of

April, they were ready for the spring work, and the middle of the latter month saw farmers busy sowing oats. But a heavy fall of snow, to the depth of 18 inches on the plain, intervened, rendering the ground very wet for two weeks or more, and it was about the middle of May before the rest of the oats were sown. Swedes were sown under favorable conditions in the end of May, but here wet weather again intervened, and some were sown as late as the 15th of June, while the yellow turnips were sown in the latter half of the month.

July was fine and dry, and crops made good progress, and the hay crop was secured in excellent condition. A good deal of hay was made in Orkney, although the crop was not extra bulky per acre.

After a fine summer, harvesting commenced in the first week of October, and was the finest in the memory of the oldest people. The crop was ready to cart as soon as the reaping was done, and in a short time it was all secured in good condition.

The bulk of straw is less than last year, but grain is far superior, oats being, on an average, about 4 qrs. per acre, and weighing from 40 to 44 pounds per bushel, and selling at 15s. per qr. Bere is also a good crop, weighing about 48 pounds per bushel, and at present is selling at 19s. per qr. for the standard weight. Potatoes, as a rule, are a good crop; likewise, turnips.

Store and fat cattle sold well all autumn. In spring, fat cattle were selling about 35s. to 36s. per cwt., live weight, in Aberdeen; the price lately has been about 38s. to 40s. per cwt.

Lambs sold for 3s. to 4s. less than last year, the average price for half-bred lambs being about 20s. Fat sheep were also down in price. There was keen demand for good horses all year. Small foals met a dull trade, but better sorts fetched up to £12. Pigs have been selling at 4½d. and 4¼d. per pound.

Summing up, the season of 1908 has been a fairly prosperous one for Orkadian farmers. Orkney Islands, Scotland. C. M.

THE SAVINGS OF YEARS

Should never be risked in uncertain investments. Much better to be SURE of your money and reasonable interest, than to risk loss of both through the unsafe depository or any get-rich-quick scheme.

The Bank of Toronto

in its Savings Department offers a perfectly safe depository for money. Its large resources, its conservative management, and experience of over fifty years, ensures all depositors and other customers an unexcelled banking service.

INTEREST PAID ON ALL SAVINGS BALANCES.

The Bank of Toronto

Capital, \$ 4,000,000
Res., 4,500,000
Assets, 39,000,000

HEAD OFFICE, TORONTO, CANADA

MARKETS.

Toronto.

LIVE STOCK.

At West Toronto, on Monday, February 1st, cattle receipts were 1,596; quality fair; trade generally good; light cattle a shade easier for butchers'; exporters firm; steers, \$5.25 to \$5.70; bulls, \$4 to \$4.75; prime picked butchers', \$5 to \$5.25; good, \$4.60 to \$5; medium, \$4 to \$4.40; common, \$3.50 to \$3.90; cows, \$3 to \$4.50; milkers, \$35 to \$65; calves, \$3 to \$6.50. Sheep, \$4 to \$4.25; lambs, \$5.50 to \$6.25. Hogs, \$6.65, f. o. b. cars at country points, and \$6.90, fed and watered.

REVIEW OF LAST WEEK'S MARKET.

Total receipts of live stock last week at the City and West Toronto Stockyards were 278 carloads, consisting of 4,441 cattle, 4,073 hogs, 1,350 sheep, 189 calves, and 104 horses.

Few finished cattle, either butchers' or exporters, are coming on the markets; in fact, not enough to supply the demand, more would find ready sale, especially exporters.

Trade was brisk on each successive market day, with prices about steady, with a tendency upward.

Exporters.—Prices ranged from \$5 to \$5.65 per cwt. for steers, and \$4 to \$4.75 for bulls, with an occasional one or two of extra choice quality at \$5.

Butchers'.—Prime quality picked lots sold at \$4.80 to \$5.15; good, \$4.40 to \$4.75; medium, \$4 to \$4.30; common, \$3.65 to \$3.90; canners, \$1.75 to \$2.50.

Stockers and Feeders.—Receipts of feeders have been light. A few short-keep feeders, 1,200 to 1,250 lbs., sold at \$5, and even \$5.25 per cwt.; best feeders, 900 to 1,000 lbs. each, \$3.80 to \$4.25, and \$4.50; best stockers, 700 to 900 lbs. each, at \$3.40 to \$3.80; medium stockers, 600 to 800 lbs., \$3 to \$3.50.

Milkers and Springers.—A moderate supply of milkers and springers found a ready market at a little firmer prices, as there was a better Montreal demand. Prices ranged from \$30 to \$60, the bulk selling at \$40 to \$55.

Veal Calves.—Receipts light, but prices have been easier, at \$3 to \$6.50 per cwt.

Sheep and Lambs.—Receipts were not large. Sheep sold at about steady prices, while lambs were easier. Ewes, \$3.50 to \$4 per cwt.; rams, \$3 to \$3.50; lambs, \$5.50 to \$6 per cwt.

Hogs.—Packers reported selects at \$6.65, fed and watered, and \$6.40, f. o. b. cars at country points. Drivers report \$6.50 as what they were receiving at country points, and \$6.75, fed and watered at the market. One driver stated that he was paying \$6.75 at Chatham, and was receiving \$6.85, f. o. b. cars at Chatham. These hogs were being bought for the Montreal market.

Horses.—The Horse Exchange at the Union Stock-yards last week did a fairly good business. On Monday about 100 horses were offered two-thirds of which were sold, at steady prices. J. Herbert Smith, manager, received orders from three different parties—100 for one,

80 for another, and 20 for a third party—to be filled at his earliest convenience. Mr. Smith stated, that had he had the right kind to suit these parties, he could have sold them on the spot. The Exchange is becoming very popular as a market, dealers being present from British Columbia in the West, and from the Maritime Provinces in the East. Prices were as follows: Drafters, \$160 to \$195; general-purpose, \$130 to \$165; expressers and farm chunks, \$100 to \$150; drivers, \$80 to \$140; serviceably sound, \$30 to \$60.

BREADSTUFFS.

Wheat.—No. 2 white, 95c. sellers; No. 2 red, 97c. bid; No. 2 mixed, 96c. bid, 96½c. sellers; all quotations for outside points. Manitoba—No. 1 northern, \$1.09½ to \$1.10; No. 2 northern, \$1.06½, at Georgian Bay ports; all-rail prices, 4c. to 5c. higher. Rye—No. 2, 69c. sellers. Peas—No. 2, 85c. to 86½c. Oats—No. 2 white, 40½c. bid, 41c. sellers; No. 2 mixed, 39c. bid. Barley—No. 2, sellers 58c.; No. 3X, 57c. sellers; No. 3, 51c. Corn—No. 3 yellow, 66c. at Toronto. Flour—Ontario 90 per cent. patent, \$3.70 bid for export; Manitoba patent, special brands, \$5; second patents, \$5.40; strong bakers', \$5.30. Bran—Scarce and higher, at \$22, in bags, at outside points; shorts, \$24, in bags, outside.

COUNTRY PRODUCE.

Butter.—Receipts large; prices easier. Creamery pound rolls, 27c. to 28c., with Locust Hill brand one to two cents more; creamery solids, 27c. to 28c.; separator dairy, 25c. to 26c.; store lots, 23c. to 24c.

Eggs.—Receipts moderate; prices easy, at 32c. to 33c.; cold storage, 26c. to 27c.

Cheese.—Market unchanged; large, 13½c.; twins, 14c.

Honey.—Market steady; prices unchanged, and likely to be, as last season's crop is nearly all in the hands of dealers. Extracted, 10½c. to 11c.; combs, \$2.25 to \$2.75 per dozen sections.

Potatoes.—Car lots of Ontarios, on track at Toronto, 60c. to 64c. per bag.

Beans.—Market a little firmer; primes, \$1.75 to \$1.80; hand-picked, \$1.85 to \$1.90.

Hay.—Baled, on track, in car lots, at Toronto, \$10.50 to \$11.

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

Poultry.—Receipts moderate, but equal to demand. Turkeys, 18c. to 20c.; geese, 13c. to 14c.; ducks, 16c. to 17c.; chickens, 14c. to 15c.; fowl, 10c. to 11c. Apples.—Prices firmer, at \$2.50 to \$5 per bbl.

HIDES AND WOOL.

E. T. Carter & Co., wholesale dealers in wool, hides, etc., quote prices as follows: Hides—No. 1 inspected steers, 60 lbs. up, 11c.; No. 2 inspected steers, 60 lbs. up, 10c.; No. 1 inspected cows, 10½c.; No. 2 inspected cows, 9½c.; No. 3 inspected cows and bulls, 9½c.; country hides, 9c.; calf skins, 12c. to 14c.; horse hides, No. 1, \$3; horse hair, per lb., 30c. to 32c.; tallow, per lb., 5½c. to 6½c.; lamb skins, 90c. to \$1. Raw furs, prices on application.

SEED MARKET.

The William Rennie Co. report the seed market about steady, with trade quiet. Prices: Alsike, fancy, \$7.25 to \$7.60, No. 1, \$6.90 to \$7.20; No. 2, \$6 to \$6.50; red clover, \$4.50 to \$5.75; timothy, \$1.30 to \$2.

Chicago.

Cattle.—Steers, \$1.60 to \$7; cows, \$3 to \$5.50; heifers, \$3 to \$5.75; bulls, \$3.40 to \$3.90; calves, \$3.50 to \$8; stockers and feeders, \$2.50 to \$5.40. Hogs.—Choice heavy shipping, \$6.50 to \$6.60; butchers', \$6.40 to \$6.55; light mixed, \$6 to \$6.15; choice light, \$6.15 to \$6.25; packing, \$6.20 to \$6.50; pigs, \$4.75 to \$5.60; bulk of sales, \$6.15 to \$6.15. Sheep.—\$4.25 to \$5.60; lambs, \$5.25 to \$7.75; yearlings, \$5 to \$6.85.

Buffalo.

Cattle.—Prime steers, \$6 to \$6.50. Veals.—\$7 to \$10. Hogs.—Heavy and mixed, \$6.55 to \$6.65; Yorkers, \$6.15 to \$6.50; pigs, \$5.65 to \$5.75; roughs, \$5.40 to \$5.65. Sheep and Lambs.—Lambs, \$5 to \$7.40.

Montreal.

Live Stock.—Supply of cattle was rather lighter last week than the week before, and the quality was somewhat better, on the average. Demand was fairly active, so that, notwithstanding milder weather, prices were pretty well maintained; some purchases for Ottawa and Quebec, but none for export. Choicest cattle sold at 5½c. to 5¼c. per lb., fine 5c., good 4½c. to 4¼c., medium 3½c. to 4¼c., common 3c. to 3½c. per lb., and inferior down to 2c. per lb. The supplies of sheep and lambs, also, were smaller, demand good, and prices firm, at 3½c. to 4c. per lb. for choice, and 3¼c. to 3½c. for culls; lambs, 5½c. to 6c. per lb. for choice lots, and 5¼c. to 5½c. for good. Calves are exceedingly scarce and prices were about steady, at \$3 to \$12 each, according to quality. The market for hogs continued very firm; the market is advancing slowly from week to week. Advices on Canadian bacon, from the other side of the Atlantic last week, were firm. Receipts of hogs here were light, both live and country-killed. The market for live, accordingly, moved up a fraction, at 7½c. to 7¼c. per lb., for select lots, weighed off cars.

Horses.—Demand showed a slight falling off, though purchases of carters were made for local account, and some horses were taken for railway construction work at points along the Transcontinental, between Montreal and Quebec. Considerable shipments have been made to Manitoba and the West for farming purposes. The general quality of the horses purchased has been good, Winnipeg having taken a few of the best—worth, say, \$300 each—for use in that city. Heavy draft, 1,500 to 1,700 lbs., \$225 to \$300 each; light draft, 1,400 to 1,500 lbs., \$185 to \$240 each; good blocks, 1,300 to 1,400 lbs., \$175 to \$200 each; small or inferior animals, 1,000 to 1,100 lbs., \$100 to \$150; broken-down animals, \$50 to \$75 each, and choice saddle or carriage animals, \$300 to \$500 each.

Dressed Hogs.—9½c. to 10½c. per lb. for fresh-killed, abattoir-dressed; country-dressed, 8½c. to 9½c. per lb. Demand good.

Poultry.—Supplies continued very light and demand good. Choicest fresh-killed turkeys sold at 19c. to 20c. per lb.; frozen, 17c. to 19c. This for best. Choicest fresh-killed chickens, 14c. to 15c. per lb., and frozen 12c. to 14c., fowl being 10c. to 11c., and geese 10c. to 11c. Ducks were 10c. to 12c. per lb.

Potatoes.—75c. per 90 lbs., carloads, on track, for the best stock. The top figure for Green Mountains seemed to be 80c., and from this the market ranged down to 77½c. Jobbing prices 5 cents higher.

Eggs.—Prices kept up, at about 35c. to 40c. per dozen; 26c. to 27c. per dozen for No. 1 lined or cold-store, and 29c. to 30c. per dozen for selects, wholesale.

Butter.—Market showed evidence of greater activity. Wholesale prices were: 24c. to 25½c. per lb. for fresh makes, 27c. to 28c. for fall makes, 23c. to 24c. for dairy rolls, 22c. to 21c. for dairy tubs, and 21c. to 22c. for Manitoba dairies. On Monday, February 1st, however, an over-supply of dairy butter depressed prices ½c. to 1c. all around.

Cheese.—Last week the market was very strong, and prices advanced fractionally. Considerable demand from England, and a little business put through. Quebecs and Townships, 12½c. to 12½c.; Ontario white cheese, 12½c. to 12½c., and colored, 12½c. to 12½c. per lb.

Grain.—No. 3 American corn, yellow, quoted at 70½c. per bushel, carloads, in store; No. 2 peas, 94c. to 95c.; Canadian Western oats, No. 2, 47c.; No. 1 extra feed, 46½c.; No. 1 feed, 45½c.; Ontarios, No. 2, 46c.; No. 3, 45c.; No. 4, 44c.; No. 2 barley, 63½c. to 65c.; Manitoba feed barley, 55½c. to 56c.; buckwheat, 55½c. to 56c.

Flour.—Market has taken a tumble. Manitoba spring wheat patents, \$5.60 per bbl., in bags, seconds, \$5.10; strong bakers', \$4.90. Ontario patents, \$5, and straight rollers, \$4.60 to \$4.70.

Feed.—Bran is quoted at \$21 to \$22 per ton, and shorts at \$21 to \$25, in bags, oil cake being \$32, and cotton-seed \$33.

Hay.—\$12 to \$13 per ton, for No. 1 hay; \$9.50 to \$10.50 for No. 2; \$8 to \$9 for No. 3; clover mixed, \$7.50 to \$8; clover, \$7 to \$7.50 per ton.

Seeds.—Quotations, \$13 to \$14 per 100 lbs. for red clover, \$16 to \$18 for

alsike, and \$5.25 to \$6.50 for timothy. Hides.—Demand and quality good. Dealers paid 9c., 10c. and 11c. per lb. for Nos. 3, 2 and 1 city hides, respectively, and a cent more for country hides, 11c. for No. 2 calf, and 13c. for No. 1, and selling to tanners at ¼c. more. Lamb skins were higher, at 80c. each, horse hides being steady at \$1.50 for No. 2, and \$2 for No. 1. Rough tallow, 1½c. to 3c. per lb., and rendered, 5½c. to 6c.

British Cattle Market.

London cables steady at 13c. to 13½c. per lb., dressed weight; refrigerator beef, 10½c. to 11½c. per lb.

TRADE TOPIC.

GARDEN SEEDS, plants and bulbs of the most up-to-date varieties and quality, are advertised in this paper, by the old and reliable seed house of Wm. Ewing & Co., 142-146 McGill street, Montreal, post-office box 376, whose handsomely illustrated catalogue of nearly 100 pages will be sent free to those who apply for it. See the advertisement and send for the catalogue early.

GOSSIP.

At Ridgetown, Ont., on February 9th, as advertised in this issue, there will be sold by auction 35 head of richly-bred Shorthorns, from the herds of T. Barrett & Sons, E. Brien & Sons, and others. Contributed by T. Barrett & Sons is Jean, three years old, a large, smooth, red heifer, got by the noted stock bull, Diamond Chief—39110—, a prizewinner at the Western and many other fairs. Others are eleven yearling and two-year-old heifers, got by the beautiful bull, Roan Champion, bred by Mr. Davis, and got by his great stock bull, Bapton Chancellor, and his dam is of the Jewel family; he is full brother to the champion heifer at the Western Fair, 1907. These heifers are in good breeding condition, and several will make show-yard stuff. Six heifer calves are of beautiful Short-horn character, and several of them would make show calves. They are the low-down, thick, beefy kind, all sired by the present stock bull, Aberdeen Prince (imp.), by the famous Sittyton Choice, bred by Mr. Duthie. They are in nice growing condition. The bulls are: Aberdeen Prince (imp.)—60830—, red, three years old, of the Scotch Princess tribe, and got by Sittyton Choice. He is a smooth, low-down, thick-fleshed kind, very quiet, sure and active, and has proved himself a first-class stock bull. The other bulls are five, all got by Aberdeen Prince (imp.), and are three reds and two roans. They are from ten to twelve months old; good, sappy, growthy fellows, from good milking dams. Others in the sale are Gipsy Queen, two years old, an exceptionally well-bred Missie, by a son of Imp. Joy of Morning; Woodburn Mina, an exceptionally well-bred Mina; Abbotsford Lady, a deep-fleshed, heavy-bodied young cow, sired by the grand old show bull, Abbotsford. This is a promising show cow, with a beautiful heifer calf at foot. There is also in the sale, the grand red four-year-old stock bull, Royal Mysie, by Royal Prince, of the Kibblean Beauty tribe; dam a richly-bred Mysie. Note the date, Feb. 9th, and the place, Ridgetown, on the Michigan Central Railroad, in Kent Co., Ont.

Bobby had been so very lonesome for a while that he had begun praying that the Lord would send him a little brother. Every night before jumping into bed he had got down on his knees and reverently offered up his petition, and latterly, without departing in any way from his reverential attitude, he had ventured to suggest that he had been waiting a long while, and hoped that the Lord might hurry matters along a little.

Whether it was in response to this suggestion or not is not known, but sure enough, in about three days, the little brother arrived, an eight-pounder, and to all other eyes than Bobby's, a rather perfect specimen. Roby looked at him with a critical air.

"Gee!" he ejaculated. "He's a great-lookin' thing, ain't he? Ain't got any hair, an' he ain't got any teeth! Why, pa, he ain't finished! I prayed the Lord to hurry him along, but I wasn't in any such hurry as that!"



HOME MAGAZINE



Life, Literature and Education.

It is a fact, lamentable, but true, that so often the sacrifice of human life seems necessary to a full realization of public dangers. Distressing as the recent accidents at Grimsby and Kingston, in which seven lives were lost, have been, they have yet served to bring vividly before the country a long and pressing need, namely, the necessity for better protection at railway crossings. At last, a Bill providing for elimination or protection of level crossings is before the House, and the Minister of Railways, Hon. Mr. Graham, has asked the Board of Railway Commissioners to make a thorough investigation of the whole problem. Inspectors will be sent out to make a report on all dangerous crossings, and steps will, no doubt, be taken in the early future to remove the menace from the points reported as most in need of attention.

The full significance of wireless telegraphy as a life-saver was well demonstrated within the last fortnight, in the sinking of the Republic, rammed by the Florida, off Nantucket, on January 23rd. There, during the fright and tumult, while the water surged into the hold, and the vessel gradually settled, the captain and the wireless operator stood side by side, the operator feverishly recording the captain's words, which were sent through space, reaching here the Acushnet, there the Baltic, the Lorraine, Lucania and City of Everett. And soon, looming through the thick fog, following the course indicated by the submarine signals used to supplement the wireless in showing the channels of approach, came the great Baltic, with other vessels following. The Republic sank, but not a life, save those crushed out by the impact, was lost. A great triumph for "wireless," a great triumph for Marconi, and for humanity.

The importance of insuring an absolutely pure supply of drinking water is well illustrated by the fact that at present over 2,000 inhabitants of Bellevue, a suburb of Pittsburgh, Pa., are ill from drinking raw river water. The filter, it appears, would not supply the demand, and so, without warning, river water was pumped in to make up the deficiency. Some farmers appear to think that the remoteness of the farm water supply from watercourses used to convey city sewage, is sufficient to insure immunity from pollution, but this is a great mistake. Farm sewage is practically of the same nature as city sewage, and, if permitted to enter the water supply, is just as pernicious in effect. Even mere distance of the well from possible sources of contagion cannot always be depended upon to insure safe water, as pollution may be insidiously conveyed by veins of underground drainage. Every person in Canada who has a well open to the slightest suspicion should have a sample analyzed. Send to Frank T.

Shutt, Chemist, Central Experimental Farm, Ottawa, for directions how to procure and send a sample for this purpose. Take no chances with disease germs lurking in the well. A clear, limpid glass of water is not necessarily pure. It may contain the deadliest germs.

With Siberia looming up as a competitor against Canada in butter and No. 1 hard, there seems hope for the veriest desolations of the earth. And Siberia will no longer stand still. The leaven of responsible Government is working, and strongly, in Russia, as in Turkey and Persia, China and India, and the people are finding their feet. The result can only be the development of the vast steppes, stretching from the Volga to the Pacific, and from the Altai Range to the frozen slopes bordering the Arctic. What the commercial result of such a development must be, cannot but be evident. Competition is the life of trade, but it is surely up to Canada to solidify her position by giving of her best, if she is to hold a leading place in the commerce of the world.

It is said that a commission, to collect information about what has been done in other countries in the way of providing facilities for technical education, will be appointed by the Dominion Government at an early date. The commission will, in all probability, have little, if anything, to do with agriculture, a branch of industry not generally identified with technical education, yet such a movement is bound to stir those interested in agriculture to renewed efforts in its behalf. When industrial education is in the air, agriculture, the most varied and intricate of all industries, when regarded from a scientific standpoint, cannot lag in the procession. Eighty per cent. of the people in the Dominion are farmers. Surely the greatest expenditure of time and money for the promotion of education for life-work should be devoted to them. The greatest good to the greatest number.

The United States Government's suit for the dissolution of the Standard Oil Company was practically closed on Jan. 15th, but the arguments of both sides will be presented in April before the United States Circuit Court, in St. Louis, and will then be taken to the Supreme Court. The record so far comprises 22 printed volumes, and represents a cost to the litigants of nearly \$10,000,000. Query—If the Standard Oil Company wins out, who will pay the bill?

People, Books and Doings.

On an average, twenty-six books a day are published in the United States alone.

The centenaries of the present year include those of Tennyson, Gladstone, Darwin, Oliver Wendell Holmes, Poe, Edward Fitzgerald, Mrs. Browning, Mendelssohn, and Lincoln, each of whom was born in 1809.

A half-dozen Canadian artists have formed a company to deal in pictures, frames and supplies. The concern, which is called "Canadian Art, Company, Limited," is capitalized at \$25,000. Its incorporators are Charles Macdonald Manly, Gustav Hahn, F. M. Bell-Smith, F. H. Bridgen, of Toronto; F. S. Challenger, Conestogo, Waterloo County; F. S. Haines, Meadowvale, and J. R. F. Row, manager, Toronto.

The Voisin factory, near Paris, which has been established solely for the manufacture of flying-machines, employs over forty workmen. All of the airships made at this factory are of the winged type used by Messrs. Farman and Delagrang, and the price of a complete machine is about \$5,000.

Prof. Percival Lowell, the American astronomer, has brought out a new book, "Mars as the Abode of Life," in which he emphasizes his idea that Mars is inhabited; that it is irrigated by canals cut to convey the water from the melting snow and ice at the poles, and that slowly yet surely the planet is drying up. In time, he says, the Martians will be parched out of existence. "The drying up of the planet is certain to proceed, until its surface can support no life at all. Slowly but surely time will snuff it out. When the last ember is thus extinguished, the planet will roll a dead world through space, its evolutionary career forever ended." The fate which is overtaking Mars, Prof. Lowell thinks, will be ultimately that of the earth.

The fulfilment of his prediction of an upheaval in the neighborhood of Mt. Etna will probably place Mr. F. Perrett, the American scientist, who was with Prof. Matucci at Vesuvius during the eruption of that mountain, in 1906, in the very foremost rank among volcanologists. In the fall of 1907 he wrote: "By the rational methods of scientific research, we know that a great eruption of Mt. Etna is impending, the only uncertainty at present being which side of the mountain will break open." Great volcanic eruptions are preceded by great earthquakes, and the Messina disaster occurred precisely on a date indicated by Mr. Perrett on his diagrams for 1908. An immediate result of the great catastrophe will no doubt be to incite deeper study into the conditions of the earth, with a view to foretelling such upheavals in time to prevent such sacrifice of human life.

The Czar has as many crowns as a fashionable lady has hats. He is regarded by his people as a religious, as well as a secular monarch, and, therefore, has crowns for every possible State occasion. The Russian Imperial crown is modelled after a patriarchal mitre. Five magnificent diamonds, resting on a huge glowing ruby, form the cross at the summit. Diamonds and pearls of utmost perfection render this crown unrivalled among all others, and there is one sapphire in it which is said to be the finest stone of its kind ever mined.

A Substitute for Model Schools Needed.

Editor "The Farmer's Advocate": The closing of the old County Model Schools last year has now passed into history. It is true ten of these Model Schools were retained to the end of the year 1908; it is true that it is still the intention of the Education Department to retain at least a few of these schools for the newer and less-densely-settled portions of the Province. It has been recommended that five Model Schools would be enough, and that these five be conducted by the Department at its own expense, as miniature Normal Schools, to issue district certificates.

The Department deserves credit for grappling vigorously with the professional training of teachers, and providing such facilities for Normal training as shall gradually elevate the type of teacher in scholarship, culture and general make-up. To abolish the County Model Schools was a policy that required courage. By many of our people they were regarded with favor. Many were friendly to them because they were cheap and local. Small towns made a little money out of the Modelites in board, etc. This was a sordid reason.

But there were other people who appreciated these local Model Schools, because they believed in the efficiency of the system. These friends of the Model Schools were numerous, and they are very skeptical now as to the merits of Dr. Seath's system of superior Normal Schools, which aim to train-to-teach students who have never taught one day, and to give them the finish, too. These people have a very serious argument, and it must be met on its merits, and not brushed aside as senile. For example, they argue that the old Model School was local and cheap, and that the students attending there for but a fall term got the rudiments of training, and were given certificates for three years. They then took schools, and in a year or two gained the most valuable thing teachers can have—experience. They were then eligible, after one year's experience, to attend Normal Schools. Having thus a year or more of experience, they were in a position to appreciate the higher training of the Normal Schools. They could observe, intelligently criticize and compare with their own experience what they saw. So far, this is admittedly good. It is better than having crude students enter Normal Schools, as they are now, without one moment's experience, because there is no way so effective in learning "how to do" as "by doing." However, it is impossible to have Normal School entrants take a year in actual teaching now under the "Pyne system," and I firmly believe that the new system is superior to the old, judged independently.

But, my object in writing this article is to suggest a modification of our new system, so as to combine in it some of the merits of the old Model-school system, and yet not impair our present excellent system; excellent, if our Normal Schools are properly staffed and equipped, and not overcrowded; excellent, if not paralyzed by the appointment of a

Dictator who can crush the autonomy out of the schools; excellent, if kept in touch with the highest ideals on one hand, and with the people on the other. I think my plan is feasible, therefore I humbly submit it for consideration.

The Normal Schools at present open on September 15th, and close on June 15th. The rural schools open about 15th of August. Now, what are the 1,200 Normal-school entrants doing from 15th of August, when the rural schools open, to 15th of September, when Normal Schools open? Simply counting their fingers, for the lack of anything better to do. I propose that our Normal Schools open October 1st, the same date as the Faculties of Education and all Universities, Medical and Dental Colleges, etc., open. During the period, 15th of August and October 1st—45 days—compel the coming Normal-school entrants who have no experience at all (and very soon they will every one be in that class) to take service in the rural schools. How can this be done? Very simply. But the Department must adopt "a definite rule," to have all teachers' midsummer examination papers read and reports published by August 1st. This gives two weeks to decide on Normal-school classes, and allocate the students for the coming Normal-school year. Then send each county inspector a list of all the Normal-school entrants in his inspectorate, and let him place them in his rural schools, not to take charge of them, but to act as assistant or pupil-teachers. There is no likelihood of any county having more than an average of twenty or thirty of these successful Normal-school entrants, and, if so, adjoining inspectors who had few could take some. These Normal-school entrants would not receive any pay, and would have to pay their board, which would be cheap in rural sections. The inspectors need have no more trouble than the placing of these students in their best schools, and moving them about as they see fit, as supply teachers, in the month and a half which they have them under their control. If there were any schools not open for lack of teachers, the best of these students might be set to work and paid, until a qualified teacher was available—until October 1st.

It will be seen now that these students will have at least thirty days' teaching experience in rural schools. They can be set to work at actual teaching, and by October 1st should have taught at least fifty half-hour lessons. Let this be the minimum, and let the inspector and regular teacher certify to this fact. But they may have taught 100 lessons or more in that time. At all events, they have seen, felt, heard, and have been in touch with living, actual, rural-school life. School-organization, discipline, ventilation, keeping registers, and all, are met with at once. This affords actual rural-school practice. During the month of September, let the Normal School Masters tour the Province, visiting schools, seeing their students, meeting the people, lecturing at Teachers' Associations, and making themselves generally useful to the schools of the Province. On October the first let there be a gathering-in of all the Normal-school faculties and students to their respective schools, and begin their training. From October 1st to June 15th is eight and one-half months' session—ample for the course. They could then work to greater advantage.

In this eight-months' session the Normal Schools could do better work than is possible now—better, because they will have students who can appreciate the training, and who have a practical point of view of their own. Students will do much better, not only in observation work, but in practical work. They will have more confidence in themselves. Besides, it might be possible, in this month and a half, to weed out some of the "impossibles," for there are always some. The Normal-school teachers concerned could visit those

students that are reported to be very weak or unfit, and see for themselves, and assume the responsibility of rejecting such students at once, rather than being compelled to do so at Christmas vacation or the end of the year, for, if not done at any time, the profession is injured and the schools suffer; and, if it has to be done, the earlier it is done, the better and the easier.

The merits of the course I outline are self-evident. The expense is nil. The whole matter is one of administration, and it should appeal to the Education Department as simple, rational, practical, and feasible. It is not imposing extra work on county inspectors. As for the expense to the students, that will be repaid tenfold by the experience gained in teaching. As for the schools, their regular work will not be interfered with; expenses and trouble will not occur. The schools simply will have their regular teacher plus a student-teacher to help him for a month and a half free of expense. The interaction between inspectors and Normal-school masters will be mutually helpful. In the case of inexperienced students for faculties of education, I would have them spend the month of September in observation in town and city public schools and High Schools. There is no difficulty in arranging this, but such experience should precede attendance, and is, of course, good later, too.

It should be remembered that our schools are one, our aims are one, we are one people, and we wish to do as Scotland did—all rise together. Let us, as a Province, join hand in hand, with one object of mutual improvement and advancement. Let all our people be educated. We want no high class, we want no low class, but, like the product of the old Scotch school system, we want all the people to be elevated together. Then will our civilization be knit together by those virtuous forces of national life that bind forever. The school is the national nursery, where opinions are sown which in private life afterwards issue forth to the world, and become its public opinion. Nations are gathered out of these nurseries, and they (the teachers) who hold the leading-strings of the children may even exercise a greater power than those who wield the reins of government. Let me quote Jules Simon's *Le Devoir*: "Civic virtues, unless they have their origin and consecration in private and domestic virtues, are but the virtues of the theatre. He who has not a loving heart for his child cannot pretend to have any true love for humanity."

R. STOTHERS.

Ottawa, Jan. 23rd, 1909.

A Refutation of Dr. Osler's "Before Forty" Theory.

The accompanying illustration, showing portraits of the Nobel prize-winners, is a rather striking refutation of the theory, which has been gaining unreasonable ground during recent years, that the work of the world is being done by the young. Of the five, only one, Dr. Rutherford, long regarded as a prodigy, is

under forty years of age. Numberless other examples of men of both the past and the present, might be given to show that the best work is not a monopoly of youth. The musicians alone—and music might be deemed an especial concomitant of youth—present an interesting array of statistics. Bach wrote his masterpiece when he was 48 years of age. Handel wrote the "Messiah" when he was 56; Haydn the "Creation" when he was 65; Wagner was writing the "Meistersinger" in the period between 49 and 51, inclusive. Bach was 65 when he died, Handel 74, Haydn 77, and Wagner 69. Beethoven wrote his masterpiece between 35 and 38, and was 56 at the time of his death. With the exception of Brahms, the other great composers died very young. Weber reached his acme between the period of 30 and 33; he died when only 39. Mozart reached the culmination at 31 years of age, and died at 35. Schubert died at 31, and it was in the same year that he produced his unparalleled symphony. Mendelssohn died at 38, but was at the highest point of his ascent at 37. Schumann died at 46, and reached a plane that he could not surpass when he was 35. Brahms is the only one who lived long and did not surpass what he had done when he was 35 years old. At his death he was 63.

Something About Our Women's Institutes.

II.

Again the open pages lie before me of the old report of the Women's Institutes, about which we had our little chat a fortnight ago, and from them I will venture to cull a few more practical utterances upon practical topics.

To begin with, one W. I. President, upon the subject of the co-operation of town and country ladies, says: "If you have a subject which you think pertains exclusively to life in town, give it to some right clever country woman, instead of taking it for granted that she knows nothing about it, and I shall be surprised if she does not astonish you with an excellent paper. . . . Every possible effort should be made to promote the free exchange of thoughts and opinions. In other words, make your meetings so interesting, profitable and enjoyable that no one can afford to stay away."

Another President pleads for more sociability. "An interchange of experiences, failures and successes. In this way we may bring out ideas, and set the ball rolling; even a little 'gossip' will do no harm. Not only may our meetings be a resort for getting recipes to cater for our homes, but let us have intellectual treats, a good reading, or a comic story, for I believe we do not laugh half enough to keep ourselves young and in good spirits and good health." The motto of this Institute is "Loyalty, Sociability and Progress"—a good one, is it not?

Mrs. Cameron, of Port Elgin, gave an excellent paper upon the subject of "The Entertainment of the Guest on the Farm." Amongst other practical words of advice, she says: "Do not make surprise visits; they are

always surprises, but rarely pleasant ones to anyone concerned. Some housekeepers, in daily fear of surprise visitors—if they have some upon their list of friends—keep their work at a high tension in anticipation." "Elizabeth, in Her German Garden," is quoted as saying that "She never enjoys her guests until after dinner, when her 'soul wakes up,' and the cares of the house are off her shoulders." Upon this, Mrs. Cameron pleads for the privacy of the kitchen being respected by the guests, adding: "Although I dearly love watching people cooking, when sent into the parlor I always go, for that is the part of wisdom." Then, how many a hostess in town or country will agree with the strictures upon

THE SPOILED CHILD

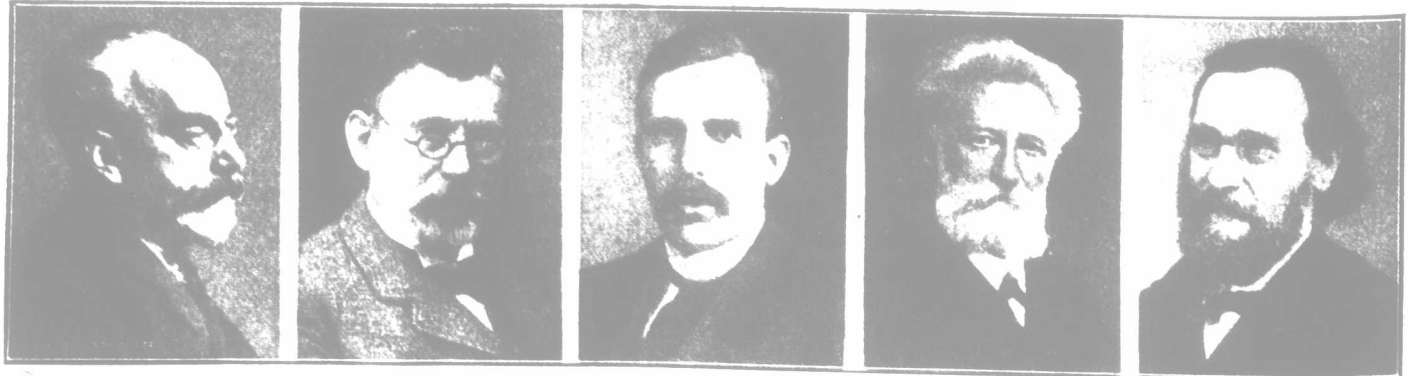
as a guest? "The worst thing that can happen to you," continues the writer of this paper, "the very worst, indeed, is to have a spoiled child and his devoted slave of a mother stay with you for a few weeks. He eats green fruit, regardless of advice, and is sick and peevish. If anyone is in the hammock or porch-seats, he cannot be happy until he has tried every one of them. He interrupts all conversation with his desire for notice and praise. He is a nightmare at table, where his cold milk, hot water, tea-and-sugar mixture, is either too hot or too cold, too sweet or too much, or he asks for articles of food not on the table." Who does not know such a child, and who does not commiserate its mother, even though she has no one to blame but herself?

I have taken to-day's quotations almost at random, leaving for another time several equally admirable ones upon one or more of the varied subjects which were under discussion at the especial annual meeting of which we are speaking. But from one most remarkable paper, the result of careful research, and abounding in facts and figures, from the pen of one of Canada's most well-known lady physicians, Dr. Helen MacMurchy, I would desire to quote more in detail. I will take first her closing words, "What will Ontario do about this?" as a very sufficient reason why the attention of the women of Canada should be earnestly called to an evil which is gaining ground more and more amongst the homes of our fair land. Dr. MacMurchy's subject was that of

"PATENT MEDICINES."

She begins it by asking, "What do people take medicine for?" and then gives some well-authenticated facts to prove the danger of the prevailing habit of self-treatment by the use of remedies of the constituent parts of which a total ignorance prevails, but which are almost without exception, not only useless, but positively dangerous to the human system.

Her first instance is of an old lady, the widow of an English officer, "who disliked doctors," but was "in the habit of taking every night nine compound rhubarb pills, several mixtures, four tablespoonfuls of scum, three teaspoonfuls of cascara, and a quantity of magnesia." No wonder she died, and no wonder it was considered necessary to hold an inquest over her remains!



The Nobel Prize-winners.

(1) Prof. Gabriel Lippmann, of the University of Paris, prize for Physics. (2) Dr. Paul Ehrlich, Berlin, half the prize for Medicine. (3) Prof. Ernest Rutherford, Manchester, Eng., prize for Chemistry. (4) Prof. Rudolf Fick, Jena, prize for Literature. (5) Prof. Theodor Mommsen, Bonn, half the prize for Medicine.

"There are a good many people like that old lady," said Dr. MacMurchy. "Most of them are not really sick, but only uncomfortable. They eat too much, or they eat too fast. People who eat slowly, and masticate their food, satisfy their needs far better than those who take a potato in two mouthfuls. Sooner or later, those who bolt their food will have indigestion, and be uncomfortable, and they deserve it. . . You have a headache, and it is your own fault, but it seems easier to swallow pills than to mend your ways, eat more slowly, take exercise, go to bed earlier, or to worry less." And thus grows the fad for self-cure by so-called patent medicines.

Dr. MacMurchy recalls the instance of Queen Alexandra, when Princess of Wales, meeting a nurse and her little charge, who was crying lustily with pain. The gracious lady inquired the cause of the child's woe. "Ma'am," said the maid, not knowing to whom she was speaking, "there ain't no stomach can stand nine buns." By analysis, the fact has been ascertained that patent medicines generally contain a very large proportion of alcohol, bread, sugar, soap, salt and water, besides, in those advertised more especially for the relief of pain, there are opium, morphine and cocaine. To this paper are appended the actual ingredients used in each of these proprietary preparations, the rules which regulate their sale, the illegal methods by which so-called testimonials are obtained, "healthy damsels being bamboozled to sign statements that they have been cured of serious diseases," whilst others are absolute forgers.

It does sound amazing that there should be people credulous enough to try "The Cartilage method, to increase their height from 2 to 5 inches," or, on the other hand, the obesity treatment, to reduce their too ponderous flesh; but that they do so, is proved by the enormous sums which find their way into the pockets of those who patent their so-called remedies, and place them upon the shelves of the more complacent chemists of our country. And now, asks Dr. Helen MacMurchy, "What will Ontario do about this?"

H. A. B.

Current Events.

Three large elevators will be built at Fort William this year.

* *

Kaiser William celebrated his 50th birthday last week.

* *

The Province of Quebec was practically snowbound for a part of last week.

* *

An English syndicate has been formed to extract radium from the pitchblend deposits of an old Cornish copper mine.

* *

The Canadian Northern Railway proposes to build sundry connecting links this year which will give the C. N. R. an all-rail route from Quebec City to Edmonton.

Where love abides, the home lacks naught besides:

I care not if the house be small and plain,

And if the roof at times admit the rain;

The home lacks naught besides where love abides.

Silas X. Floyd, in Lippincott's.

In the nature-study examination came the demand, "Of what use are snails?" James raked his brains in despair, and then wrote: "Snails are good to compare us to when we are slow." It was he who, to the question, "What are healthy bodies?" replied, "Good dead bodies."—The Century.

A Mennonite School.

The old Bearinger Schoolhouse, 2 1/2 miles north-west of the town of Waterloo, Ont., was torn down last summer (1908), and replaced by a new modern, up-to-date red-brick building (shown herewith), which was opened last September. Mr. John S. Thomas, whose picture is given here, has been the teacher for the last 34 years in succession in the old school-



J. S. Thomas, teacher.

is plain, as also are their homes, though very comfortable, and scrupulously clean. And, for expert dairying and good substantial meals, the Mennonite wives are hard to beat.

The Mennonites do not consider it right to take oath by swearing (only to affirm, and they will not go to law). They also think it wrong to take up arms for war, and, as the Canadian Government gave them the privilege of not going to war, they settled in this country.

Canada may be proud of having these people, as they are industrious, successful, honest and peaceable. In short, a Mennonite's promise is as good as his note. E. H. GOOD.

The secret of success is constancy to purpose.—Disraeli.



The Old Bearinger Schoolhouse.

house, and has been engaged for the 35th year. The present trustees are of the smallest scholars he had 34 years ago in the old schoolhouse. The new schoolhouse is up-to-date in every respect, the inside being finished in ash (hardwood finish), and furnished with the latest school furniture, hot-air furnace, 24-in. bell, etc., and is indeed a credit to the

The Quiet Hour.

Telepathic Influence.

Though I be absent in the flesh, yet am I with you in the spirit.—Col. ii: 5.
"Oh, turn me, mould me, mellow me for use,
Pervade my being with Thy vital force.



The New Bearinger Schoolhouse.

people of the section, which is solely settled by Mennonites, and is in the heart of the pioneer settlement of the first Mennonites who emigrated here from Pennsylvania as early as 1812. These people are very industrious and thrifty, and are of Canada's best farmers and stockmen (invariably have large bank barns) and many are quite wealthy. Their dress

That this else inexpressive life of mine
May become eloquent and full of power,
Impregnated with life and strength divine,
Put the bright torch of heaven into my hand,
That I may carry it aloft
And win the eye of weary wanderers here below,
To guide their feet into the paths of peace.

I cannot raise the dead,
Nor from this soil pluck precious dust,
Nor bid the sleeper wake,
Nor still the storm, nor bend the lightning back,
Nor muffle up the thunder,
Nor bid the chains fall from off creation's long enfeathered limbs.
But I can live a life that tells on other lives,
And makes this world less full of anguish and of pain;
A life that like the pebble dropped upon the sea
Sends its wide circles to a hundred shores.
May such a life be mine,
Creator of true life, Thyself the life Thou givest,
Give Thyself, that Thou mayst dwell in me, and I in Thee."

Though people sometimes call this "a material age," perhaps there never was a time when psychological phenomena were more carefully noted and studied. St. Paul's statement that he is with the Colossian church in the "spirit," though absent in the "flesh," is not necessarily a poetical figure of speech, but is quite up-to-date and scientifically possible. In a letter to the Corinthian church he commands them to hold a sort of ecclesiastical court, in order to judge one of their number who had committed a great sin, and again he promises to be there to help in their decision, although in the very same letter he says: "I will tarry at Ephesus until Pentecost."

Modern cases of thought-transference are often very startling to us who don't understand the laws which govern our own spirits. May I instance one or two? One Sunday morning last summer a lady in Toronto was lying apparently at the point of death, when suddenly she said to the nurse, "I hear Canon Cayley praying for me, and I am going to get better." He was praying for her by name in the church, at that hour. She told my niece that she heard the words with perfect distinctness. Quackenbos says that when anyone is dying he is in an intensely hypnotic state, and unusually free from the restraining power of the body. Who can determine the telepathic power of the human soul?

Another instance of thought-transference occurred a few nights ago. It is rather ludicrous, but shows pretty conclusively to my mind that thoughts can flash from mind to mind without bodily assistance. I was in the midst of long and connected dreams, between 3 o'clock and daylight, when suddenly a cat seemed to run before my dreaming eyes, and jumped from the top of a high building. I thought nothing of it until I heard that about that hour someone had leaped out of an upstairs window and dropped a cat to the ground. It could hardly have been a coincidence, for nothing that had gone before could have suggested such a dream.

I was once reading aloud to a sick person when my brother walked along the sidewalk, shut the gate with a click, and came in. He said, as he came into the room and saw the Bible: "You have been reading the twelfth chapter of Ecclesiastes, haven't you?" As a matter of fact, I had just finished reading that very chapter, so I was naturally rather startled.

Perhaps you may wonder why I fill up my space with such occurrences, as they do not on the surface appear to be very helpful from a spiritual point of view. But if you look at the matter more closely you may see their bearing. It is a truism that people influence others far more by what they are than by what they say or do. But how can the secret thoughts of a man, or his secret character, influence others? Simply by this very fact of telepathy or thought-transference. The thoughts you cherish, the thoughts which are slowly making you, are leaping out without your knowledge or will, and affecting, for good or ill, your relations and acquaintances. Then think how tremendously important it is that you should guard your thoughts, and obey the Apostle's command to think of the things that are true, honest, just, pure, lovely, and of good report.

When Saul came to Samuel to ask about the lost asses of his father, he found himself expected. A choice portion of food had been especially reserved for him, and Samuel told him that the asses were found and that his father was alarmed about his long absence. How

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did Samuel know all this? I don't see that we need to explain all mysterious events in the Bible records as miraculous in their nature. There are men nowadays who seem to have special gifts in mind-reading, and perhaps Samuel's name of "The Seer" was given because of this special faculty.

Quackenbos says that when he hypnotizes a patient, he is depressed or uplifted himself, according to the character of the patient. After dealing with a person of peculiarly beautiful character, he is filled with a strange sense of joy for days. Surely we can all testify to the inspiring influence of fragrant lives, the saints who are the salt of the earth.

If I began by commonplace descriptions of thought-transference, it was because I want you to realize that telepathic influence is not the sentimental idea of visionary idealists, but is a solid, everyday fact—as much an instrument for ordinary use as the telephone. You want to reach those you love, reach their hearts more surely than any spoken or written word can do. Then put your hand in God's and reach out to them through Him. Send your thought-messages many times a day. You need no Marconi station, no scientific education. God Himself will see that they reach their destination.

Are you longing to help in the great missionary movement that is reaching out to win the world for Christ, and are you tied down to the prosaic household tasks that seem to be always ready to be done over again? To you, also, comes the call: "Launch out into the deep, and let down your nets for a draught!" Right there, without moving your body one step from home, you can touch and help God's children in any part of His great kingdom.

While I was writing these words I received this letter from one of "The Farmer's Advocate" readers in Maryfield, Sask.:

Dear Hope,—I am writing to thank you for help received from the "Quiet Hour," and enclose \$5 towards your work among the poor. God has been very good to me and mine since we left the Old Country six years ago to come to this wonderful Canada, with all its possibilities."

Was it only an accidental coincidence, do you think, that this very day my attention should have been especially drawn towards two tiny babies, whose father is working in Regina, and whose mother died there last fall? The babies were sent to be cared for by their grandmother in Ontario, and she is very poor. It seemed as though this money from the West came on purpose to give needed help to these little Western children.

Then there is "A Lankshire Lass," who is living the quietest of lives, bearing her heavy cross with cheery courage, and reaching out to touch her sisters' lives and inspire them with patience. And right here I wish to thank her for her letter to me and for the verses enclosed. It is not possible for me to start a private correspondence with our readers, as I have already more writing to do than is good for me, but it is always a great pleasure to hear from any of you.

It is wonderful to remember that God is always ready and willing to act through us, to speak to people through our lips, to let His Life-spring Spirit breathe through our spirits. The business of our lives should be to keep this spirit of ours pure and strong, so that it may be a really valuable instrument in God's hands. He knows where to find us, and how best to make use of us.

"What light is going out from you, now, and every day, to those who have not the joy of your secret? What radiance can they see about you? What good cheer do you bring? Is there any one dark soul that brightens at your coming—and brightens, not with your own light, but with that light which you hold in you from Him who alone is the Light of the world? His light it must be. Is there any one to whom that light passes through your ministry?"

DORA FARNCOMB ("HOPE").

SOMETHING TO DO.

Thank God every morning when you get up that you have something to do that must be done, whether you like it or not. Being forced to work, and forced to do your best, will breed in you temperance, self-control, diligence, strength of will, content, and a hundred virtues that the idle will never know.

The Ingle Nook.

A Good Mince-meat—Chinese Lily.

Dear Dame Durden,—I am not sure where to send this letter, as I have never written before, but I am a constant reader of "The Farmer's Advocate." I do enjoy reading the Ingle Nook; I never miss it, and have got a number of nice recipes out of it, and so I think it my duty to give "Lankshire Lass" the recipe for mince pies without meat. I have tried it, and found it very good. 1 cup of raisins, 1 nutmeg, 2 cups of water, tablespoonful of cinnamon, 2 cups of sugar, butter the size of an egg, ½ cup vinegar, eight crackers, rolled fine. Cook well together before baking. This makes two pies. I think a few apples added improves it. I do hope "Lankshire Lass" is better, as I can sympathize with her, as I have been poorly for years. A Happy New Year to all.

M. B.

P. S.—Can anyone tell me how to get the bulbs of Chinese lilies? I have one and was told after it blossomed it would have to be destroyed. I think there must be a way of preserving them.

Ans.—I have asked both Chinamen and commercial florists about this. Both say that Chinese lily bulbs do not mature well in this country. There is nothing for it but to discard the old bulbs and get new ones that were grown in China.

Infant's Food Again.

Dear Dame Durden,—While reading "Jack's Wife's" letter last evening, my conscience began to prick me most uncomfortably, for I fear I am one of those thoughtless ones who come to the Ingle Nook when in need of advice, and neglect it at other times. I mentally resolved to do better, when, behold you! the opportunity looked me in the face. I happened to see an "Anxious, but Thankful Mother's" request, and having had considerable experience along that line, determined to write at once, hoping by this means to atone in some slight measure for my former carelessness.

When I found that I was not going to be able to care for Baby No. 1 in the way provided by nature, I determined to put in practice some of my former hospital training. From the very start I fed her on "modified milk," using the formula taught me while in training, and I am sure if "Anxious Mother" could see Baby Betty and her small sister, she would consider them sufficient recommendation for any food; a healthier, happier pair would be hard to find. I used the modified milk exclusively for Baby Betty until she was well supplied with teeth for more substantial food, and the wee five-months-old girlie has had nothing else as yet, and they are in every respect perfectly healthy children. The directions for preparing modified milk call for the use of either lime water or soda. I have found the soda more satisfactory, as the lime-water is somewhat constipating. For my babies in the hospital, as well as in my own home, the formula I used at eight weeks is as follows:

Milk, 3 ounces; cream, 3 ounces; soda, ½ teaspoonful; sugar, 2 tablespoonfuls; water, 17 ounces.

If a larger quantity is required, use the same proportions. I always boiled all water before using, and find it more satisfactory to use separated milk and cream, although whole milk may be used if cream is not obtainable. In that case the whole milk is allowed to stand for four or five hours, and the top used, making the quantity equal to that of the milk and cream combined in the formula.

I would strongly recommend "Anxious Mother" to procure, if at all possible, a little book, "The Care and Feeding of Children," by Dr. L. Emmet Holt. It was one of our Text-books when I was in training, and I would not be without it for many times its cost. It gives most explicit directions for preparing artificial food for infants, and I feel, having been largely instrumental in helping my babies to be the rosy little ladies that they are.

I am sure Dame Durden, as well as the other Nookers, will be thinking it is a good thing that I don't come often, since I have made such an unpardonably long call this time, but I felt that I must pass along my experience that it might possibly help "Anxious Mother."



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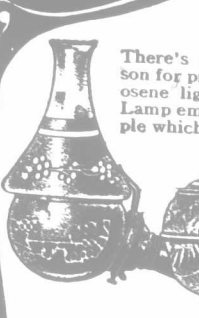
Is pure Nova Scotia sheep's wool, dark in color, neat appearance. There is nothing so durable.

A. P. H. PANTS are well and strongly made, and have four pockets. Try a pair, and see the difference in wear between pure wool and shoddy.

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There's no longer any reason for prejudice against kerosene lighting. The Ingle Lamp employs a new principle which does away with all smoking and offensive odors and makes the best and the most satisfactory light in the world.

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or electricity, and better than either, because its light is soft and mellow and does not hurt the eyes. It's the light with "no under shadow," lighted and extinguished like gas. It is safe, clean and convenient. A great difference between the Ingle and any other lamp.

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A Woman's Sympathy

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

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

Now, "Anxious Mother," send away to-day for the little book mentioned. If unable to get it from your book-dealer, write Dame Durden for my address, and I will mail you mine to use until you can obtain a copy. I am positive you will never regret having procured one.

BABY BETTY'S MOTHER.

Durham Co., Ont.

A round dozen or more have answered "Anxious Mother's" query. We thank all heartily. It is impossible to print all of the letters now, but I am holding them over for publication on some future occasion, when the subject will be new again. A portion of Scottie's letter, which diverged somewhat from the recipe, is given below.

A Letter from Scottie.

Dear Dame Durden,—The Farmer's Advocate has just come in, and, after a hard morning's work, I sit down to look in at the Nookers, and join in for a little. "The Shades!" What a treat! I just think it all over many a time when I am busy. And you even noticed me, just for my one little call! The practical "Jack's Wife"—I like to see her around. And you thought Dame Durden gave you away, did you? I first guessed when your letters came seldom; then you remember telling us how to make a box for a baby. I used a barrel padded up, that the little head could see over the top. Many an hour my babies stood there. I could put it close to the window, that they could see out. I never had a hired girl or relations to help me, so you young women are just doing what we all did before you. The years slip away fast, and you will soon have help; and, oh! what is far better, companions. I have four girls and two boys, and a farm, with the usual work, and let me whisper it—I make all their clothes, and my youngest girl is ten. I am afraid you will say I am giving you too much home news. It is to cheer you all up, young wives—and remember the place of honor you are all filling, mothers of Canada.

We are to have our Institute meeting to-morrow. Last winter I boned a turkey and trussed a fowl at a meeting. I have not been able to attend often, but I believe we have a very progressive corner here.

How do you do, Lankshire Lass? I am glad to see you are able to write. Are you able to make your pies? I'd like to peep in and shake every hand in a Happy New Year.

Middlesex Co., Ont.

Suggestions from "Liberty."

Liberty suggests that "Anxious Mother" rub her babe, all over, quite frequently, with olive oil, to strengthen it.

Continuing, she gives the following in regard to cooking fish:

When fish were mentioned, I wondered if all knew how much nicer they are if the bones are removed before cooking. Begin where the head joins, and run the thumb under the bones near the backbone. There is little or no waste, and they are easily removed. Did you ever try dipping them in corn meal, instead of flour? I like it much better.

Success with Home Dyeing.

There is nothing magical about the art of dyeing. It is a group of facts, and the expert is the one who has the ability to keep these facts in mind to draw from as the occasion requires. Dyeing has been looked upon from the viewpoint of economy. It is the means that often has enabled many a hard-working mother with small children to keep them well and tastily dressed without drawing too heavily on the household funds that often run low. Yet it also has an artistic side which, in the hands of one who has an eye for color and the knack of putting together colors that will harmonize, has been able to transform the dull and dingy rooms of the old house into bright and cheerful retreats for tired souls. Dyeing is an educator. Dress the children in bright, clean colors and they will be much more careful of such clothes than if their garments are faded and worn. Can this be attained in any better way than often to dye and remodel the style of the children's garments?

Viewed in this light, dyeing is a valuable adjunct to the many helps that are

now available to the housekeeper who is striving to do the best she can with the least outlay.

Some will say, "I have tried and have no luck," etc., but luck does not enter the problem. As declared in the beginning, it is a group of facts, and it is a few of these facts that we purpose to state, so that anyone who wishes can be as successful as the custom dyer in the city.

First, study the fabric.

First, make yourself familiar with the several fibers that enter into the composition of the different goods that we find on the market. This can be determined sometimes by a simple examination, but often the mixture is of such a nature that experts are baffled. Generally this can be determined by raveling out the threads each way of the cloth, from a small piece, and trying them in a flame.

Cotton burns freely without odor; wool sings, with but very little flame, and gives out a disagreeable odor, as of burning horn or hair; silk burns less freely than cotton, while mercerized cotton masquerades in unexpected places as silk, and often gives trouble to the unsuspecting dyer. All-wool material, like ladies' dress goods, etc., should be carefully ripped, and cleaned by washing, care being taken about the use of soap, as strong soap will dissolve the wool fibers. If the color comes out when put into the water, boil for a few moments, turn out the colored water and replenish with clear hot water, doing this as long as the water is colored. You will readily see, if the goods are uncleansed and put into the dye bath in this condition, that the old color on the goods will mix with the new dye, and the resulting color will be a combination of the new and old colors, and not what you had reason to expect. Here is where many failures are made.

The goods are oftentimes boiled in a dye solution, much as one would boil potatoes, and with as little attention, and the dyer wonders why bright, clean shades were not obtained as a result of such unthinking methods. Have your goods as clean as possible and free from old color.

The dye bath.

The next step is the preparation of the dye bath. This involves the selection of the dye that is adapted to the fiber to be dyed. Some are claiming that it makes no particular difference what the goods are, that there are dyes that will color all the different fibers at one and the same time, and in the same bath. This is true only in a very limited sense. It is not true when you are seeking the best attainable results, as shown in the bright, new effect and permanency of the dye. The best results can only be obtained by adapting the dye to the particular fiber or fibers which compose the goods.

For wool and silk, or a mixture of these fibers, use a special dye for wool and silk, and you will secure the brilliant color and appearance of new goods.

If the cotton dyes are used for such goods, a dull color will result, which will show on the face of the goods when made up that the article has been re-dyed, and such colors are fugitive.

Our grandmothers knew better than this, and with the limited resources of the indigo dye-pot in the chimney corner, logwood chips, fustic, alum and blue vitriol, did good work, but they found that wool and cotton must be handled differently. And the dyers that have to-day all the grand combination of colors which the advent of the coal tar series has placed at their disposal, will say with us that the affinities of the dyestuff and the goods to be dyed must be studied if you are to expect satisfactory and lasting results.

Now follow the rules exactly.

After deciding on the dye to use, read the directions carefully; no matter if you think you know all about it, read them and follow them to the letter. Dissolve the dye with hot water by boiling in a small dish, strain into the water you intend to use for the dye bath already heated and placed in a vessel large enough to move easily the goods to be dyed, enter the goods while moist, stir often. Keep the dye at boiling heat for thirty minutes at least, and if the goods are cotton, or mixtures with cotton, let the temperature cool down before taking out the goods, stirring often during the time.

If the goods are dark enough, hang

Diamond Dyes AND CHILDHOOD DAYS.

"My little Margaret had a very pretty dress made of light blue Lansdowne. She attended a children's party one day, and spilled ice cream all over the skirt. I intended to throw it away, but for some reason packed it away in a box.

"I was ransacking a closet with a friend one day, when I came across this dress and began to lament the unfortunate occurrence.

"My friend asked me why I did not dye it with Diamond Dyes, and I replied I thought I couldn't get satisfactory results. She advised me to try, anyhow, and the next day I bought a package and proceeded to dye the dress.

"It gave it the most beautiful brown color I have ever seen, and now the dress has been restored to its old-time place on the party peg.

"Very sincerely, MRS. JAMES KEATING, PHILADELPHIA."



"EASY TO KEEP CHILDREN WELL DRESSED."

"We have five children in our family, and the two older girls are constantly outgrowing their dresses. It takes a good deal to dress five children.

"Now, I have found that with Diamond Dyes I can make over the girls' dresses, and they are just exactly as good as new for the little ones. In doing this I find it wise to change, not only the color of the dress, but the way it is made, so it will not be recognized as 'sister's old dress' by the youngster's playmates.

"I color the dress some pretty, bright, fresh color, and make some changes in the trimmings to further disguise it. Sometimes the substitution of different trimmings, especially if I make a new cap or jacket to match the dress, is all that is necessary. I don't know how I would dress my children without Diamond Dyes.

MRS. A. K. DEERING, SCRANTON, PA."

Important Facts About Goods to be Dyed.

Diamond Dyes are the standard of the world, and always give perfect results. You must be sure that you get the *real* Diamond Dyes, and the *kind* of Diamond Dyes adapted to the article you intended to dye.

Beware of imitations of Diamond Dyes. Imitators who make only one kind of dye claim that their imitations will color wool, silk or cotton ("all fabrics") equally well. This claim is false, because no dye that will give the finest results on wool, silk or other animal fibres can be used as successfully for dyeing cotton, linen or other vegetable fibres. For this reason we make two kinds of Diamond Dyes, namely: Diamond Dyes for Wool, and Diamond Dyes for Cotton.

Diamond Dyes for wool cannot be used for coloring cotton, linen or mixed goods, but are especially adapted for wool, silk, or other animal fibres, which take up the dye quickly.

Diamond Dyes for cotton are especially adapted for cotton, linen, or other vegetable fibres, which take up the dye slowly.

"Mixed Goods," also known as "Union Goods," are made chiefly of either cotton, linen, or other vegetable fibres. For this reason our Diamond Dyes for cotton are the best dyes made for these goods.

Diamond Dye Annual — Free Send us your name and address (be sure to mention your dealer's name, and tell us whether he sells Diamond Dyes), and we will send you a copy of the *New Diamond Dye Annual*, a copy of the *Direction Book*, and samples of dyed cloth, all **FREE**.

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SKIN DISEASES

These troublesome afflictions are caused wholly by bad blood and an unhealthy state of the system, and can be easily cured by the wonderful blood cleansing properties of

Burdock Blood Bitters

Many remarkable cures have been made by this remedy, and not only have the unsightly skin diseases been removed, and a bright clear complexion been produced, but the entire system has been renovated and invigorated at the same time.

SALT RHEUM CURED.

Mrs. John O'Connor, Burlington, N.S., writes:—"For years I suffered with Salt Rheum. I tried a dozen different medicines, but most of them only made it worse. I was advised to try Burdock Blood Bitters. I got a bottle and before I had taken half a dozen doses I could see a change so I continued its use and now I am completely cured. I cannot say too much for your wonderful medicine."

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DEPT. O.

The proprietor of an institution professing to cure stuttering, tells of the amazement with which a visitor from the interior of the State contemplated the huge gilt sign displayed over the entrance to the place.

"Stammering Institute. Trial lesson free."

"Upon my soul," exclaimed the rural Pennsylvanian, "if that don't beat all! I knew they taught most everything these days; but who the deuce wants to learn stammerin'?"

AFTER FIVE YEARS OF SUFFERING

Dodd's Kidney Pills Effect Another Grand Cure in Nova Scotia.

Mrs. Margaret Brady Tells How They Relieved Her of Rheumatism and Made Her Stronger in Every Way.

Green's Brook, Pictou Co., N.S., Feb. 1.—(Special).—That diseased kidneys are the cause of the ills from which so many women suffer, and that they are cured completely and permanently by Dodd's Kidney Pills, is once more proved in the case of Mrs. Margaret Brady, of this place.

"For five years," says Mrs. Brady, when interviewed regarding her sickness and cure, "I was ill with Kidney and Liver complaint, which caused Rheumatism, Neuralgia and Heart Flutterings. My nervous system was affected and my blood seemed to lack vitality.

"I tried medicines and was under the doctor's care, but received no benefit till I used Dodd's Kidney Pills and Diamond Dinner Pills. They relieved me of Rheumatism and made me stronger and better in every way. These remedies, and no other, cured me."

Dodd's Kidney Pills always cure diseased kidneys, and all diseases that are caused by diseased kidneys or impure blood.

them up to drain and cool, then rinse thoroughly and press while moist.

Why we say to dissolve and strain the dye into the water that is to be used as a dye bath, is because we have known many people to open the dye package and throw the contents into the kettle of hot water intended for the dyeing, stir it a little, and put in the goods. When such goods are taken out, little spots of undissolved dye will be fixed as so many dark points all over the surface. And the person doing this always maintains that she has followed directions exactly!

During the dyeing process very careful attention should be given to stirring, turning, and lifting of the goods in the air. A large percentage of unsatisfactory dyeing is due to neglect of this point. The stirring should be done with two clean, smooth, round sticks. If these are pointed, or have sharp corners, or are splintered, the goods are apt to become torn, particularly in the case of silk or other thin materials. From the time the garment enters the dye bath, it should be continually agitated with the sticks, always with a tendency to spread it out, trying to take up as much of the dye as possible. Do not allow it to become knotted or bunched in one part of the vessel, or float on the top of the dye. It should be often lifted and turned over completely, in order that one portion may not remain for any length of time in contact with the bottom of the vessel, because at this point the heat is greatest, and the dye would become forced on, and produce a heavier shade on this spot.

It is not always convenient to rip the garment; dresses, children's clothes, and men's coats and trousers must often be dyed whole. Careful attention is required in dyeing to keep them spread out free from folds, and in rinsing and hanging up to dry, do this in such a manner that the moisture left after the rinsing will not gravitate toward the seams and leave a spot that will be darker in shade than the body of the goods.

Warning and suggestions.

In men's clothes and ladies' wraps, the linings should be removed before dyeing. After dyeing, such articles should be washed well with water and soap to remove surplus dye and prevent crocking the undergarments. Garments made up of a mixture of cotton and wool, cotton and silk, cotton, wool and linen, linen and wool, linen and silk, linen and cotton, pongee, silk, mercerized cotton or straight cotton, require the dyes for cotton, linen and mixed goods. In dyeing light shades, be careful not to use too large a quantity of the dye powder. Often all that will be necessary is just enough to show color in the dye bath.

Remember that a long bath in a weak color is more permanent than a short bath in a strong color. This applies with especial force to summer wash goods. Such goods, after rinsing from the dye, should be passed hot in a clear, well-strained starch solution colored with a little of the dye liquor in which the goods were dyed. Hang up and treat as you would starched goods in the laundry. This fixes the color and gives body to the goods. The starch solution should be boiled and used thin. Wash goods can in this way be kept bright by using the colored starch solution after each washing. Solutions of the dyes can be kept in bottles indefinitely, if tightly corked, and are valuable aids in the laundry department.

A word about wringing dyed goods may not be amiss. Some dyers do not wring at all. Rinse thoroughly and squeeze out with the hands lightly and hang up to drain and dry.

Do not put freshly-dyed goods through the wringer, for it will produce creases very difficult to press out. Many stiff silks and ribbons are ruined by the rough handling given them in the process of dyeing and wringing. Here is where the careful manipulator will show the best results. Shirtwaists sold from the department stores and elsewhere are nearly all made up with cotton thread, and trimmed with cotton lace. Such articles must be dyed with the dyes for cotton, linen and mixed goods.

Please remember when your dyed goods are not satisfactory, there is a remedy for it. Search carefully for the cause, for there is one, and you will find it if you do not get too hurriedly. In dyeing over-dyed colors, we often

lose sight of the fact that dyes are transparent, and are modified in a marked degree by the color they are dyed over. Study the effects of such combinations, and make your selections of dyes in view of the combination that will take place when the goods are dyed.

Again, though it may seem unnecessary to say, we have known many to make grievous mistakes by not keeping the fact in mind that goods cannot be dyed a lighter shade than the original color. There is hardly a week passes without the city dye houses receiving black goods with the request that they be re-dyed shades ranging from a gray to a brilliant red. The only color that will give satisfactory results on black is the same color to brighten it up.—From Good House-keeping.

The Roundabout Club

A Country Boy in a Big City.

Editor "Roundabout Club":

"Raoul's" letter discusses a topic of perennial interest. His picture of boarding-house life in a big city is true to the very letter, at least as far as some kinds of boarding-houses are concerned. Raoul describes one of the better classes of such houses. He says nothing of the monotony of the food served in many such places, of the factory-made fruits and meats, or of the inevitable prunes and the hash—that clever catch-all, for all manner of odds and ends. He says nothing of the temptations inherent in such life. Too often acquaintances are made and intimacies and familiarities are allowed in such quarters that shackle a man all his days.

Really, though, does the fault lie in the hard surroundings or in the drudgery of one's work? Surely it is a grave mistake to lay the blame for the young man's loneliness upon his occupation or upon his stopping-place. The blame is to be placed far oftener at the young man's own door. The young man described by Raoul is a selfish youth, who allows his mother to bring up the Snobs and the Northern Spies, rather than his securing his own afternoon lunch, and himself clearing away the consequent debris. Why does he not read to his mother or sister, rather than bringing down the house by exercising his vocal powers, while the rest of the family are reading or seeking a little rest? Very often young men who are thus babied, are only too willing to get away from the hard and soiling work of the farm, in order to seek a soft time of it in the city. Sooner or later, such a young man learns, as all of us must one day learn, that this old world demands toil of every one of us, and that our pleasure in living consists in work well done, in conquest and achievement. God pity anyone who follows the will-o'-the-wisp amusement, or who looks to others to make him happy! Let all such remember that the Scottish Universities were founded and maintained by men who cultivated theology on a little oatmeal, and that the Caledonian canal was constructed by men who fed themselves on peas brose twenty-one times a week—"for a rarity"—they hilariously declared. For the average young man of good health, fair education, and industrious and frugal habits, the chances for success are more numerous and greater in the country than in the town or city. But success does not depend so much upon what others do for us, or the gates other people hold open for us, as upon what one does for himself and for the ways hewed out for our advancement by our own thought and industry. If Raoul's young friend will make up his mind that he will identify himself with a wide-awake church, and will prove himself a helper rather than a leaver, in some of its activities, if he buys a season ticket at a good Y. M. C. A., if he takes an active interest in its physical-culture classes, and if he resolves to be a master in his work and to be a leader in it when his hands are strong enough and his experience wide enough for leadership when it comes his way, he will have but little to complain of, no matter whether his lot be cast in the quiet of the country or in the whirl and glare of a city. The world has need of young men of backbone, intelligence, industry and sound principle. Without these no one can succeed, with these no youth will ever white over his existence.

Nitrate of Soda

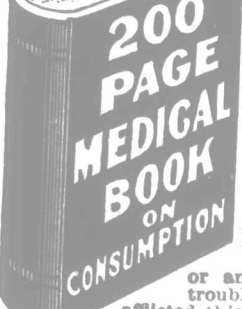
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Orders for All Quantities Promptly Filled—Write for Quotations

Consumption Book



FREE

This valuable medical book tells in plain, simple language how Consumption can be cured in your own home. If you know of any one suffering from Consumption, Catarrh, Bronchitis, Asthma, or any throat or lung trouble, or are yourself afflicted, this book will help you to a cure. Even if you are in the advanced stage of the disease and feel there is no hope, this book will show you how others have cured themselves after all remedies they had tried failed, and they believed their case hopeless.

Write at once to the Yonkerman Consumption Remedy Co., 1260 Rose Street, Kalamazoo, Mich., and they will send you from their Canadian Depot the book and a generous supply of the New Treatment, absolutely free, for they want every sufferer to have this wonderful cure before it is too late. Don't wait—write today. It may mean the saving of your life.

THE QUESTION OF "Quality" IN SEEDS Nothing But the Best FOR YOU.

Present Prices for Our Best

"Sun" Brand Red Clover,	\$ 7.75 bush.
Ocean " Alsike "	11 00 "
Gold " Alfalfa "	13.00 "
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PURE. CLEAN. THE BEST.

ASK FOR SAMPLES.

Seeds For the Farm For the Garden

SEND FOR CATALOGUE.

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124 King St., East,

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Big Magic LANTERN FREE



This valuable Magic Lantern, same as illustrated, and all complete, including one dozen handsome Colored Slides, given free for selling only 11 boxes, \$2.75 worth of Dr. Snyder's Famous Vegetable Pills, the greatest Remedy known for Indigestion, Weak or Impure Blood, Catarrh, and also for all Liver and Kidney Troubles. Sell 25c. box. No trouble to sell them—everybody needs them. Send your name and address and we will mail you the pills. Write at once. A postal will do. THE RELIABLE PREMIUM CO., Waterloo, Ont., Dept. X.

No true man craves anyone's pity, while self-pity will ruin the best opportunities anyone ever enjoyed.

Raoul's letter serves the valuable purpose of reminding the country youth, who sees only the surface of city life, to stop and think before he closes forever the door upon a life in a good country home that vies in opportunity, in very many essential respects, with the best any city has to offer.

A Letter from Perth.

Editor "Roundabout Club":

Having read with great interest the articles on subjects discussed in these columns lately, I desire to join the Club and give a few opinions.

With Crazy Kid (who, I think, disguises himself terribly by his pen name, as his writing was perfectly sane), I agree with Nero and Jane, and I certainly do side in with Crazy Kid as to there being a lack of Christianity in the youth of to-day.

I believe that in a great many cases, singleness is caused by having begun courtship too young. I know a young girl 16 years of age, keeping company with a man who drinks, swears, and uses tobacco in every form.

Now, in your January 7th issue, you ask for discussion on, Should people of different tastes and temperaments marry? or is more happiness to be found in marrying someone "like one's self"?

I believe that where people of the same taste and temperament are married, a more immediately harmonious life follows, but take it for granted that they are both high-tempered, conceited, or have any of the so-called faults, these are not so apt to be corrected, whereas, if the two partners are of different taste and temperament, the good disposition in one is sure to influence the other.

Perth Co., Ont.

"Calling-off" for Dances.

We would advise H. G. B., P. Q., who wrote for directions in regard to "calling-off" dances, to get a book on the subject. Any bookseller will probably be able to get such a book for him.

The Literary Department.

MOTTOES FOR LITERARY SOCIETIES.

Editor "The Farmer's Advocate":

Would you kindly print in the Literary Column of "The Farmer's Advocate" at the earliest date possible, suggestions for a motto for our Literary Society, to be put up in the front of the schoolhouse when our society meets? Our colors are blue and gold.

Suggesting that you prefer to follow the popular fashion of adopting a motto in

Latin, or some foreign language, we submit the following:

Cogito, ergo sum.—I think, therefore I exist.

Docendo discimus.—We learn by teaching.

Dum vivimus, vivamus.—While we live, let us live.

Per aspera ad astra.—Through rough ways to the stars.

Conjunctis viribus.—With united powers.

Ars longa, vita brevis.—Art is long, life is short.

Nulla dies sine linea.—No day without something done.

Otium sine litteris est mors.—Leisure without literature is death.

Quanti est sapere.—How desirable is wisdom or knowledge.

Esto quod esse videris.—Be what you seem to be.

Aut inveniam viam aut faciam.—I shall either find a way or make one.

Audiat et altera pars.—Let the other side also be heard.

Qui non proficit, deficit.—He who does not advance goes backward.

Tempus fugit.—Time flies.

Tibi seris, tibi metis.—You sow for yourself, you reap for yourself.

Das Beste ist gut genug.—The best is good enough.

Aide toi, et le ciel t'aidera.—(Fr.)—Help yourself, and Heaven will help you.

The Study of Literature and Art in Rural Homes.

Editor of Literary Society:

I am very much interested in the subject suggested for discussion in the Literary Department, viz.: Whether it is advisable for people of rural districts to be interested in literature and art. It is particularly the literature part of the question which interests me, and I think everyone should study literature.

I know of no other study which quickens the imagination, makes life seem more worth living, strengthens the intellect, and awakens the sympathies as this study does.

Take, for instance, the study of poetry, and see how it develops the powers of observation. Many of us are blind to the beauty around us. Of many of us, as of the poet before his awakening, may this be said: "A primrose by the river's brim, a yellow primrose was to him and it was nothing more." Day after day, we gaze on the beauties of field and sea and sky. We behold the sun rise and set in all its glory, but to us that glory is veiled; it is as though our eyes were hidden and we cannot see. Then, one day, perhaps, we chance to read, "The Splendor Falls on Castle Walls"; we look toward the setting sun to see what that splendor is, and for the first time upon our startled vision the splendor falls. A new world is opened to us. We see things beautiful and grand everywhere, and we begin to be glad, with a gladness before unknown, that we are living in such a lovely world.

Another reason why we should study literature is because that study creates a desire for other study. We cannot study Macaulay's "Lays of Ancient Rome," or Shakespeare's "Julius Caesar," without wanting to know something of the history of Rome; Scott's poems turns us to the history and geography of Scotland; Churchill's, "The Crisis," to the history of the slave trade and the civil war, while the "Glimpse Behind the Curtain" interests us in the politics of England in the days of Cromwell. There is no good literary work, which we can study in such a way as to understand and enjoy it, which does not teach us a great many other things.

Sometimes we get tired of our narrow surroundings and our humdrum lives, but if we once become absorbed in study, it is surprising how quickly our horizon widens. There is nothing stupid or dull in associating with the great men of the world, and we may all have this companionship, if we will but make ourselves more worthy. As Ruskin says, "Do you ask to be the companion of nobles? make yourself noble and you shall be."

ONE IN EARNEST.

Lady amateur artist (to eminent Royal Academician, whom she has discovered sketching—I say, I shouldn't paint that subject if I were you. I did one of it last year, and had it chucked at the "R. A."—Punch.

TRUE ECONOMY IN Organ Buying

True economy in organ buying is to pay an honest price for the



ORGAN

and procure an honest instrument that will give "lasting" satisfaction.

Sherlock - Manning Organ Co., London, Ontario.

Names of Intending Builders.

We will send a handsome present to those who FIRST send us the names and addresses of people who intend to erect or repair buildings where we can effect sales of SAFE-LOCK SHINGLES, CORRUGATED SHEETS, SIDINGS or CEILINGS. The buildings may be barns, houses, schoolhouses, churches or town halls, etc.

We will also give THREE CASH PRIZES, as follows:

- \$5.00 in cash for the list which brings us the best business.
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ALL LISTS ARE TO BE SENT IN BY THE END OF FEB'Y.

Names may be sent in at different times, and the person sending in any name first gets the credit for it. So rush along at once the names of intending builders whom you know of now, and make enquiry, so that you can send in more names later on.

THE METAL SHINGLE & SIDING CO., LIMITED
PRESTON, ONT. MONTREAL, QUE.

IN THE LEAD

For 1909

The 1909 Model U. S. Cream Separators

retain all features that have given them their great reputation for durability and efficiency, and have several improvements that make them even to a greater extent than ever before, the ideal machine for dairymen who are posted and who demand the best.



And by intensifying the circuitous and tortuous currents of the milk in its passage through the separator bowl, we have been able to

Greatly Reduce the Diameter of the Bowls

which makes them operate easier than ever and still retain their great milk capacity.

Notwithstanding most manufacturers were complaining all last year of dull times and small sales the UNITED STATES SEPARATOR had one of the largest sales in its history and since this fall season began, sales are larger than last year.

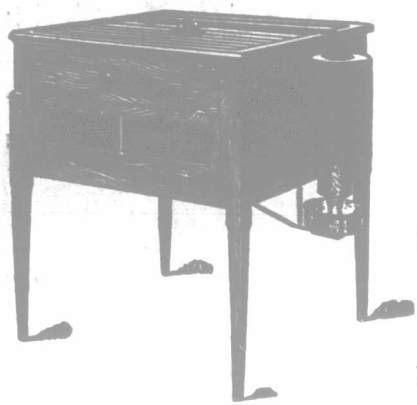
Do not forget that the United States has beaten every separator in endurance tests and holds the WORLD'S RECORD.

No dairyman can afford to purchase a cream separator until he has first examined the construction and operation of the

1909 Model

Sales agents in nearly every dairy section. If no agent in your town, write direct to us for Catalog No. 110 and we will also quote prices. Prompt deliveries from warehouses at Montreal, Winnipeg and Calgary.

VERMONT FARM MACHINE CO., Bellows Falls, Vt.



MODEL Incubators and Brooders

AWARDED HIGHEST HONORS AT
Toronto Industrial, Ottawa
and
Winnipeg Exhibitions.

Twelve Reasons Why YOU Should
Use Model Goods:

1st. Because there are no other goods on the market just as good as the Model Goods.
2nd. Because we give about double the value for money that other manufacturers do.
3rd. Because you have no trouble in hatching good, strong, healthy chicks with the Model Incubators.
4th. Because the Model Regulators are as near perfect as it is possible to make them. We claim we have the best regulator on earth.
5th. Because you will find the Model the most simple machine to handle; no cut-offs or other devices. Model Incubators regulate themselves; once set will run a whole season without change.
6th. Because you can go to your rest at night perfectly satisfied that the lamp and regulator will take care of the machine without the least anxiety or care on your part.

7th. Because all our machines are manufactured of the best hardwood (chestnut) with double walls, and packed with wool.
8th. Because the Model Goods are built for business, and to last a lifetime.
9th. Because we do not attempt to compete with a lot of the poor trash there is on the market.
10th. Because we want you to try us just once. We know if you do we have made a life-long customer.
11th. Because the Model Brooders take care of the chicks when hatched and rear them.
12th. Because we could fill a book with reasons why you should purchase Model Goods, but don't know one reason why you should not send us along your order and give us a trial.

Our 1909 catalogue is out, and it's free for the asking. Address:

The Model Incubator Co., Ltd., River St., Toronto.

The Golden Dog (Le Chien D'Or.)

A Canadian Historical Romance.

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[Serial Rights Secured by the Wm. Weid Co., Ltd., London, Ont.]

CHAPTER VII.—Continued.

Such of the company as were able resumed their seats amid great laughter and confusion, when the Sieur Deschenaux, a reckless young gallant, ablaze with wine and excitement, stood up, leaning against the table. His fingers dabbled in his wine-cup as he addressed them, but he did not notice it.

"We have drunk with all the honors," said he, "to the bright eyes of the belle of Quebec. I call on every gentleman now to drink to the still brighter eyes of the belle of New France!"

"Who is she? Name! name!" shouted a dozen voices; "who is the belle of New France?"

"Who is she? Why, who can she be but the fair Angélique, whom we have just honored?" replied De Pean, hotly, jealous of any precedence in that quarter.

"Tut!" cried Deschenaux, "you compare glowworms with evening stars when you pretend to match Angélique des Meloises with the lady I propose to honor! I call for full brimmers—cardinal's hats—in honor of the belle of New France—the fair Amélie de Repentigny!"

Le Gardeur de Repentigny was sitting leaning on his elbow, his face beaming with jollity, as he waited, with a full cup, for Deschenaux's toast. But no sooner did he hear the name of his sister from those lips than he sprang up as though a serpent had bit him. He hurled his goblet at the head of Deschenaux with a fierce imprecation, and drew his sword as he rushed towards him.

"A thousand lightnings strike you! How dare you pollute that holy name, Deschenaux? Retract that toast instantly, or you shall drink it in blood—retract, I say!"

The guests rose to their feet in terrible uproar. Le Gardeur struggled violently to break through a number of those who interposed between him and Deschenaux, who, roused to frenzy by the insult from Le Gardeur, had also drawn his sword, and stood ready to receive the assault of his antagonist.

The Intendant, whose courage and presence of mind never forsook him, pulled Deschenaux down upon his seat, and held fast his sword arm, shouting in his ear:

"Are you mad, Deschenaux? You knew she was his sister, and how he worships her! Retract the toast—it was inopportune! Besides, recollect, we want to win over De Repentigny to the Grand Company!"

Deschenaux struggled for a minute, but the influence of the Intendant was all-powerful over him. He gave way. "Damn De Repentigny," said he, "I only meant to do honor to the pretty witch. Who would have expected him to take it up in that manner?"

"Anyone who knows him; besides," continued the Intendant, "if you must toast his sister, wait till we get him body and soul made over to the Grand Company, and then he will care no more for his sister's fame than you do for yours."

"But the insult! He has drawn blood with the goblet," said Deschenaux, wiping his forehead with his fingers; "I cannot pardon that!"

"Tut, tut! fight him another day. But you shall not fight here! Cadet and Le Mercier have pinned the young Bayard, I see, so you have a chance to do the honorable. Deschenaux, go to him, retract the toast, and say you had forgotten the fair lady was his sister."

Deschenaux swallowed his wrath, rose up, and beat his sword, calling the Intendant by the arm. He went on to Le Gardeur, who was

still trying to advance. Deschenaux held up his hand deprecatingly. "Le Gardeur," said he, with an air of apparent contrition, "I was wrong to offer that toast. I had forgotten the fair lady was your sister. I retract the toast, since it is disagreeable to you, although all would have been proud to drink it."

Le Gardeur was as hard to appease as he was easy to excite to anger. He still held his drawn sword in his hand.

"Come!" cried Bigot, "you are as hard to please as Villiers Vendome, whom the King himself could not satisfy. Deschenaux says he is sorry. A gentleman cannot say more; so shake hands and be friends, De Repentigny."

Impervious to threats, and often to reason, Le Gardeur could not resist an appeal to his generosity.

He sheathed his sword and held out his hand with frank forgiveness. "Your apology is ample, Sieur Deschenaux. I am satisfied you meant no affront to my sister! It is my weak point, messieurs," continued he, looking firmly at the company, ready to break out had he detected the shadow of a sneer upon anyone's countenance. "I honor her as I do the queen of heaven. Neither of their names ought to be spoken here."

"Well said! Le Gardeur," exclaimed the Intendant. "That's right, shake hands and be friends again. Blessed are quarrels that lead to reconciliation and the washing out of feuds in wine. Take your seats, gentlemen."

There was a general scramble back to the table. Bigot stood up in renewed force.

"Valets!" cried he, "bring in now the largest cups! We will drink a toast five fathoms deep, in water of life strong enough to melt Cleopatra's pearls, and to a jollier dame than Egypt's queen. But first we will make Le Gardeur de Repentigny free of the guild of noble partners of the company of adventurers trading in New France."

The valets flew in and out. In a few moments the table was replenished with huge drinking-cups, silver flagons, and all the heavy impedimenta of the army of Bacchus.

"You are willing to become one of us, and enter the jolly guild of the Grand Company?" exclaimed the Intendant, taking Le Gardeur by the hand.

"Yes, I am a stranger, and you may take me in. I claim admission," replied Le Gardeur with drunken gravity, "and by St. Pigot! I will be true to the guild!"

Bigot kissed him on both cheeks. "By the boot of St. Benoit! you speak like the King of Yvetot. Le Gardeur de Repentigny, you are fit to wear fur in the Court of Burgundy."

"You can measure my foot, Bigot," replied Le Gardeur, "and satisfy the company that I am able to wear the boot of St. Benoit."

"By jolly St. Chinon! and you shall wear it, Le Gardeur," exclaimed Bigot, handing him a quart flagon of wine, which Le Gardeur drank without drawing breath. "That boot fits," shouted the Intendant exultingly; "now for the chant! I will lead. Stop the breath of anyone who will not join in the chorus."

(To be continued.)

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The roller that increases farm profits and lightens the labor. Runs light, does splendid work, and lasts a life-time. Don't buy until you get "The Bissell Book" telling all about this roller. Book's free—write today. Address Dept. W.

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Condensed advertisements will be inserted under this heading at two cents per word each insertion. Each initial counts for one word, and figures for two words. Names and addresses are counted. Cash must always accompany the order for any advertisement under this heading. Parties having good pure-bred poultry and eggs for sale will find plenty of customers by using our advertising columns. No advertisement inserted for less than 80 cents.

BREEDER of high-class Barred Plymouth Rocks. Wyandottes. Pair Silver-faces, \$3. H. O. Heimbecker, Hanover, Ont.

DOLLARS, five, for trio Silver-faced or White Wyandottes. Pair Favrolles, \$3. H. O. Heimbecker, Hanover, Ont.

FREE 1909 poultry catalogue. Describes and prices 45 varieties land and water fowl. S. A. Hummel, Box 23 Freeport, Illinois.

FOR SALE—40 choice Barred Rock pullets. Some laying now. W. A. Bryant, Cairngorm, Ont.

FOR SALE—Thirty White Holland turkeys, one black tom, three African; pair Toulouse, pair Embden geese, Pekin, Rouen ducks. All bred from winners. Baker Bros., Box 317, Guelph.

FOR SALE—Pure-bred Single-comb Black Minorca fowls from first-prize birds. Best layers. Jas. E. Barrett, Box 217, Huntingdon, Que.

MAMMOTH Bronze turkeys. Show birds. Bred from prizewinning heavyweight stock. Young toms 22 to 27 lbs. Pairs not akin, R. G. Rose, Glanworth, Ont.

OVER 400 Winter Fair turkeys have been shown at Guelph Winter Fair the past nine years by 25 exhibitors. I was awarded 30 first prizes, leaving only 24 firsts for the other 24 exhibitors. I have furnished first-prize winners at Dominion Exhibition (Calgary), Manitoba Poultry Show (Neepawa), and Winnipeg Poultry Show the past year, besides winners at Madison Square Garden, N. Y., and largest shows in Indiana. Choice stock for sale—all ages—at moderate prices, considering quality. W. J. Bell, Angus, Ont.

WHITE Wyandottes for sale. A few pullets from prizewinning stock. Eggs in season. Also Partridge Wyandotte eggs. A. Mutton & Son, Mitchell, Ont.

WHITE Leghorns—For sale. A number of cockerels, show birds; also some very choice pullets. Robt. Hughes, Collingwood, Ont.

WANTED Poultry, all varieties. Correspondence solicited. Address: C.W. Lee, Onondaga.

IMP. STALLION FOR SALE
The Oro and Vespra Clydesdale Horse Association offer for sale a bargain: Their imp. Clydesdale stallion, Sir Lachlan [6147] (10460). For particulars apply to **Geo. Raikes, Sec., Barrie P. O., Ont.**

For Exchange!

Brand-new cream separator. Best make. Machine in good condition. Will exchange for good, sound colts, horses, or chickens. Box R, Farmer's Advocate, Toronto.

"Leading the 'care-free' life," says the philosopher of Poultry, consists in getting rid of the 'worry' which is the cause of all the trouble in the world. Write for 'The Care-free Life' to the author, J. B. Bell, Del. Ont.

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.

CHOICE farm for sale, County of Welland. 117 acres; 25 acres in bush. Brick house (eleven rooms) and outbuildings in good condition. Well watered. Possession arranged. A bargain. R. F. Argles & Co., 6 King St., West, Toronto.

FOR SALE—Cedar posts and shingles, hemlock boards and joists. Can quote close figures delivered on cars at railway stations. Bradley Com. Inv. Hamilton, Ont.

FOR SALE—One of the best farms in Elgin Co. 100 acres. 20 acres hardwood timber. 5 miles from St. Thomas. All conveniences. For all particulars apply to Box 79, Fingal, Ont.

FOR SALE—275 acres in the County of Oxford, Township of Blenheim. This farm is one of the best in the Township. Fine stone house. Large barn. Silo. Everything up-to-date. Forty acres wheat. Come and see it. Walter Hall, Washington, Ont.

FARMS FOR SALE—50 acres; 8 miles to London market; good buildings. 25 acres; 3 miles to London market; good buildings; good garden land. 5 acres; 1 mile to London market; 10 minutes' walk to street cars; a fine home. 10 acres; 1 mile from London market. 100 acres; 4 miles from London market. 150 acres; 6 miles from London market. 40 acres; market garden; 3 miles from London. 320 acres of land near City of Moose Jaw, N. W. T.; lovely house and bank barn; good water; 5 1/2 miles from Town of Luxford; no better section; well settled; will exchange for small farm in Middlesex. 100 acres, County of Lambton, Township of Inniskillen; good buildings; good land. If in want of a farm, large or small, we can suit you. Apply: London Real Estate Exchange, Room 13, Green Swift Building. Auction sales promptly attended to. J. A. Lawson, Auctioneer.

WANTED A situation on a first-class stock farm, or would take farm on shares. References if required. Lovett, Kintore, Ont.

WANTED Travelling representative for machinery, who can take five thousand interest. Prosperous, energetic farmer or ex-municipal officer preferred. Address: Box 55, Guelph.

WANTED By a middle-aged man—situation as manager or foreman on farm by a good all-round man, honest, trustworthy, and willing to make things go. Address: G. Mason, Canadian Farm, Abundant, Que.

WANTED Hard maple logs, 22 inches and over diameter, small end 10 to 16 feet long. Will inspect, pay cash at railway track. Bradley Company, Hamilton, Ont.

WANTED Married man for a farm near London. Experienced; good with stock. Free house. Apply, stating age, wages, etc., to Mrs. Farmer's Advocate, London.

WANTED AT THE DELHI TANNERY Hides, Skins and Furs for Robes, Coats, etc. Tanned soft and pliable. Never get wet. B. F. BELL, DELHI, ONTARIO. Subscribe for "Farmer's Advocate"

"SAVE-THE-HORSE" SPAVIN CURE



READ THESE TWO LETTERS FROM A BANKER.

BEAR ALSO IN MIND A SIGNED CONTRACT GOES WITH EVERY BOTTLE.

GOETHENBURG NATIONAL BANK
CAPITAL & SURPLUS \$ 50,000.00
GOETHENBURG, NEBR.

May 11, 1908.

Troy Chemical Co., Binghamton, N. Y.
Gentlemen,—Enclosed find check for \$5, for which please send me one bottle "Save-the-Horse," with the written guarantee. My trotting stallion is curbed rather badly, and as he is making two stands per week I don't want to blister him and lay him up. I saw your ad. in The Farmer's Advocate, and as you claim your remedy removes these blemishes without laying up the horse, I decided it is just what I want. Your prompt attention will greatly oblige.

Yours very truly,
L. A. BURSON.

Troy Chemical Co., Binghamton, N. Y.
Jan. 1, 1909.
Gentlemen,—Enclosed find my draft for \$5, for which kindly send at once one bottle of "Save-the-Horse." The bottle I purchased of you in May did all you claimed for it. I gave the horse a long season, drove him every day, and sold him this fall sound as a dollar. He had quit going lame before half the bottle was used on him; but I kept it up for a month or six weeks longer till the enlargement was all gone. I unhesitatingly recommend this remedy to all my friends who need anything of the kind, and the fact that you have since received orders from this locality is sufficient proof of this. With compliments of the season, I am,

Yours truly,
L. A. BURSON.

Why does "Save-the-Horse" so distinctly dominate over firing, blistering and every remedy and method known to veterinary practice? Why, because on any and every case of any account, the kind where all other methods fail, it proves to be the only remedy that has the peculiar properties and power to consummate the desired result. Nearly everything made will cure some cases; but what are they compared with the cases "Save-the-Horse" cures? Whether the case is an old, a new, or a serious complicated case considered beyond hope, in using "Save-the-Horse" you are not frittering away time and money.

"SAVE-THE-HORSE" Will Permanently Cure Under Any Test

Bone and Bog Spavin, Ringbone (except Low Ringbone), Curb, Thoroughpin, Splint, Shoebill, Wind-puff, Injured Tendons, and all lameness, without scar or loss of hair. Horse may work as usual. \$5.00 per bottle, with a written guarantee, as binding to protect you as the best legal talent could make it. Send for a copy and booklet.

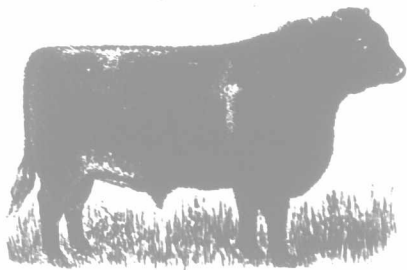
At Druggists and Dealers, or Express Paid.

TROY CHEMICAL CO., BINGHAMTON, N. Y., and 148 VAN HORN ST., TORONTO, ONT.

35 Choice Scotch and Shorthorns At Auction

On the Fair Grounds, Ridgetown, Ontario, on

February 9th, 1909, at 1 P. M.

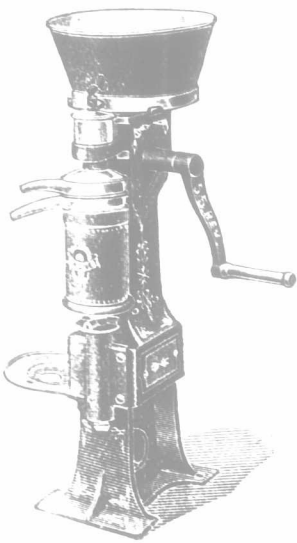


From the herds of T. BARRETT & SONS, E. BRIEN & SONS, and others. This offering comprises one of the best collections of Shorthorns ever sold in this part of Ontario, containing many show animals, 7 choice bulls—including Aberdeen Prince (imp.) = 60830 =, 9 choice cows with calves at foot or coming in soon, 12 yearling and two-year-old heifers, and 7 heifer calves. For further notes see Gossip.

TERMS.—One year's credit on approved joint notes, or 5 per cent. off for cash.

CAPT. T. E. ROBSON, Auctioneer.

Are you a man who cares? If so, investigate the



MAGNET Cream Separator

There has always been a desire on the part of "men and women who care" for something better than the average—a machine better than the ordinary, and these people are prepared to buy when they see it, and expect to pay the manufacturers a reasonable profit, knowing by experience that the superior article pays better than the inferior if the first cost is a little more. Large catalogue, giving description of the DOUBLE SUPPORTED BOWL, SQUARE GEAR CONSTRUCTION and PERFECT OPERATION, free. Address:

THE PETRIE MFG. CO., LIMITED,

Hamilton, Winnipeg, St. John, N. B., Regina, Sask., Calgary, Alta.

SUBSCRIBE FOR "THE FARMER'S ADVOCATE AND HOME MAGAZINE."

He Bought Her a 1900 Washer

One of Our Readers Tells How Her Husband Learned

What Washday Means to a Woman.

Dear Editor:—Most men have no realization of what "wash-day" means to a woman. My husband is one of the best men that ever lived, but he laughed when I asked him one day to get me a 1900 Gravity Washer. I told him it would wash a tubful of clothes in six minutes. "Why, wife," said he, "a washing machine is a luxury. And, besides, there's no better exercise than rubbing clothes on a washboard. It's good for the back. I think we had better wait till we get the farm paid for before fooling away money on such new-fangled things as washing machines."



John's Busy Day.

That settled it. I gave up the idea and kept right on washing in the same old way. I confess I felt hurt, but I knew John had no notion how hard it was to do the washing for a family of five—three of them little tots. I am not very strong and the washing, with all my other work, finally got the better of me. I had quite a sick spell, and after things had gone at sixes and sevens for nearly two weeks, I suggested to John that he had better do the washing. We couldn't hire a girl for love or money, and the situation was desperate. So one morning he started in. My! what a commotion there was in the kitchen. From my bedroom I occasionally caught glimpses of poor John struggling with that mountain of dirty clothes. If ever a man had all the "exercise" he wanted, my husband was that man! Couldn't help feeling sorry for him, and yet it made me laugh, for I remembered how he made fun of me when I hinted so strongly for a 1900 Gravity Washer. When he finally got the clothes done and on the line he was just about "all in."

That evening John came to my room and said kind of sheepishly: "What's the name of the firm that makes those Washers you were telling me about?" I looked up their advertisement and found the following address:

F. A. N. Bach, Manager,
The 1900 Washer Co.,
357 Yonge St., Toronto, Canada.

That's all he said, but he lost no time in sending for their Free Washer Book. The book came in due time, and with it an offer to send the 1900 Gravity Washer on thirty days' free trial. My husband jumped at the chance to try the Washer without having to spend a cent. "We'll have four weeks' use of the Washer anyway, even if we don't decide to keep it," he said. So he told the company to send on the Washer.

It was sent promptly, all charges paid, and the 1900 Washer Company offered to let us pay for it in little easy payments. The next week I felt well enough to use it. It is the nicest Washer I ever saw, and it almost runs itself. Takes only six minutes to wash a tubful, and the garments come out spotlessly clean.

We were all delighted with the Washer, and wrote to the company that we would keep it and accept their easy payment terms of 50 cents a week. We paid for it without ever missing the money, and wouldn't part with the Washer for five times its cost.

If women knew what a wonderful help the 1900 Gravity Washer is, not one would be without it. It saves work and worry and doctors' bills. Takes away all the dread of wash-day. I feel like a different woman since I have quit the use of the washboard. If any woman's husband objects to buying one of these labor-saving machines, let him do just one big washing by hand-rubbing on the old-fashioned washboard, and he will be only too glad to get you a 1900 Gravity Washer.

Anybody can get one on free trial by first writing for the Washer Book. Don't be talked into buying any other machine—there are many imitations, but none "just as good" as the 1900 Gravity Washer.

Excuse me for writing such a long letter, but I hope, Mr. Editor, you will print it for the benefit of the women readers of your valuable paper.

Sincerely yours,
MRS. J. H. SMITH.

The secret of the easy operation of the 1900 Washer is in the peculiar "S" shaped links, which no other washer can have; then it has no iron to come in contact with the clothes, and also has a removable tub, which is a great convenience.

1400

LONDON, ENGLAND.

IMPORTANT SALE

200 Reg'd Hackneys and High-class Harness Horses

On TUESDAY, 9th MARCH, 1909,

At the Repository, Cricklewood Lane, Cricklewood, London, England.

STALLIONS. BROOD MARES. HARNESS HORSES.

The sale takes place the week following the close of the Great Hackney Horse Show, when many prizewinners will be sold. Catalogues on application to: **TICHENOR-GRAND COMPANY, Proprietors and Auctioneers.**

OVERSHOES FOR HORSES.

The latest invention to add to the comfort of the horse is an overshoe which may be used to assist the wearer in pulling loads over slippery roads or paved streets. Overshoes for horses are not made of rubber, though many horses in cities do wear rubber heels. The new overshoe is merely a self-fitting chain tread of hardened steel, which can be quickly buckled on, and as quickly taken off the foot of the horse, without tools and without skill. It is the invention of a Massachusetts man, and is working out most gratifyingly in stables where it has been used as an emergency shoe in frosty weather. Many of the big coal,

ice and trucking concerns have equipped their teams with the overshoes, and their letters of appreciation to the inventor tell of a thoroughly practical device, which seems to be giving satisfaction wherever tried. Since obtaining his patent last year, the inventor has made some notable improvements by the use of an oblong link instead of a round one over the frog, so that the chains do not come in contact with it, and by covering the wire which passes around the heel with thick cotton cordage, which operates as a comfortable pad. As an emergency appliance when a spell of icy weather comes, these overshoes for horses will probably come into general use.—Horse World.

Canada's Leading Horse Importers.

Clydesdales and Hackneys

STALLIONS AND MARES.



Champions of two continents now on hand. If you want the best call on:

Graham Bros.,

"Cairnbrogie" Stock Farm, CLAREMONT, ONT.

Claremont Station, C. P. R. Long-distance 'phone in house.

Imported Clydesdales and Hackneys by Auction

At the VILLAGE OF WINCHESTER, on

Wednesday, February 10th, 1909,

MR. J. J. BLACK & SON

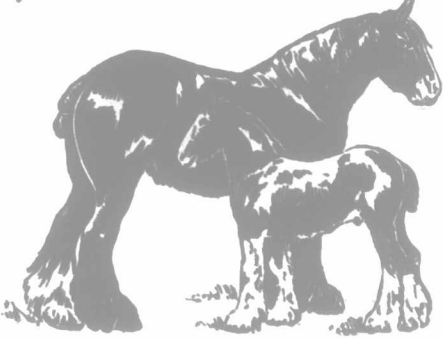
will sell, without reserve, 1 imp. Clydesdale 1 Canadian-bred Clyde stallion, 1 horse colt foal, 2 imp. Clyde mares, 2 imp. Hackney stallions, and 1 Standard-bred stallion. Every animal in this lot is a winner, and some of them are champions. A high-class lot. Terms: Two notes of 6 and 12 months, bearing interest at 4%; 6% off for cash. Every animal guaranteed.

SUBSCRIBE FOR "THE FARMER'S ADVOCATE AND HOME MAGAZINE."

Don't Throw it Away
USE **MENDETS**

They mend all leaks in all utensils—in brass, copper, graniteware, hot water bags etc. No solder, cement or rivet. Any one can use them; fit any surface; two million in use. Send for sample pkg. 10c. Complete pkg. assorted sizes, 25c postpaid. Agents: Wm. G. Collette Mfg. Co., Dept. K, Collingwood, Ont.

INSURE



YOUR

IN FOAL MARES

Why risk the loss of a valuable Mare or Foal or both of them when a payment of a few dollars would indemnify you for such loss should it happen.

The General issues policies for 30 days, 6 months or 12 months covering the mare with or without the foal.

Farm Horses, Stallions, Castration, Cattle Insurance

Prospectuses sent Free on demand.

Agents wanted in unrepresented districts where resides a Veterinary Surgeon.

THE GENERAL
Animals Insurance Co. of Canada.
NEW YORK LIFE BUILDING, DEPT. B
MONTREAL, P. Q.

TRADE TOPIC.

SPRING STYLE BOOK.—Garments made to order in large factories and sent by express, or by mail, are commonly worn, and with general satisfaction. The National Cloak and Costume Co. have an advertisement in this issue announcing that their new spring catalogue will be sent free on request. This company supplies costumes, dresses, waists, skirts, raincoats, etc., in all sizes and colors, made according to measurements sent in by the customer.

GOSSIP.

A six-year-old driving mare, 15.2½ hands high, sired by Prince Rupert, is advertised for sale, or exchange for some general-purpose horse.

FORTHCOMING EVENTS.

Feb. 17th.—Annual meeting Canadian Ayrshire Breeders' Association, Queen's Hotel, Montreal.

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

Edward Auld, of Edmonton, Alta., is reported as having recently purchased a bunch of Thoroughbred and Standard-bred horses in the States, which will be shipped to Alberta in March. Mr. Auld intends to take a carload of horses to the Seattle Exhibition next summer, including some of this recent purchase.

An important auction sale of 200 registered Hackney stallions and brood mares and high-class harness horses, is advertised in this paper, to take place in London, England, on Tuesday, March 9th, at the close of the National Hackney Horse Show. Catalogues may be had on application to the proprietors and auctioneers.

The number of animals registered by the American Jersey Cattle Club in 1908 totalled 14,273, and the number of transfers recorded was 15,433, a statement showing a steady increase and an active demand, the transfers recorded in the month of December being 1,623, the highest for any month in the history of the Club.

Attention is again directed to the advertisement of the auction sale of Clydesdale, Hackney and Standard-bred stallions, belonging to Messrs. J. J. Black & Son, at the village of Winchester, Dundas County, Ont., on Wednesday, February 10th, when will be sold several imported Clydesdale stallions and mares, two imported Hackney stallions, and one Standard-bred stallion. The terms of sale are easy, and the horses insured.

Mr. E. Dymont, Gilead Springs Farm, Copetown, Ont., writes: My sales of ponies during the past month have been good. To Mr. W. T. Smith, of Glanford, three foals of 1908; and to Mr. A. G. Cooke, Notre Dame du Lans, Quebec, one pair of matched fillies rising two and three years, respectively, as good as can be found. Have still a few single ponies and matched pairs, and a few foals of 1908, at reasonable prices, as I am crowded for room in my stables. We also supply harness and rigs, all of which we will quote as low as possible on application.

SALE DATES CLAIMED.

Feb. 9th.—At Ridgetown, Ont., Thos. Barrett & Sons, E. Brien & Sons, and others.

Feb. 10th.—J. J. Black & Son, Winchester, Ont.; Clydesdales and Hackneys.

March 4th.—R. H. Reid & Sons, Pine River, Ont.; Shorthorns.

March 4th.—At Woodstock, Ont., H. J. Davis, John T. Gibson, T. E. Robson, and Wm. Waldie, Shorthorns.

TRADE TOPIC.

FEED COOKERS, now that the cold weather is with us, are in season for cooking and steaming feed for stock, heating the pens to keep young pigs from freezing, heating water in tanks, shops, and running dairy separators. Attention is called to the cooker and boiler advertised in this paper by the manufacturers, Rippley Hdw. Mfg. Co., Grafton, Ill., Box 14, many of which are in use in all parts of Canada, and highly recommended. At the price it sells, considering its durability, it is, without a question, the best on the market. It is highly recommended by 13 leading State Experiment Stations. Special inducements are offered to Canadians for the months of January and February, and we advise sending for a copy of their 1909 catalogue of cookers, as they manufacture four styles, and 20 sizes, ranging in price from \$3.95 to \$50.00. They are also the largest manufacturers of sprayers and farm supplies in the Central States, and their goods are highly recommended.

THE All-purpose Flour, and superior for every purpose. Highest grade in the world. Purity label guarantees success, or your money back.

"More bread and better bread."

WESTERN CANADA FLOUR MILLS CO., Limited
Mills at WINNIPEG, GODERICH, BRANDON.

PURITY FLOUR

Radiol



RADIOL TREATMENT prolongs the life of a horse's legs. Completely removes by radiation all soft swellings that disfigure and lame a horse, as Sprained Tendons, Windgalls, Bog Spavins, Capped Elbow, Big Leg, Enlarged Glands, etc.

No Blister; No Laying Up; No Hair Removed.

RADIOL TREATMENT fixes down a worn horse's legs, and is a certain cure for puffy joints and Sprains, Prevents Filled Legs.

An intelligent use of the "RADIOL LEG WASH" counteracts that daily wear and tear of the legs unavoidable with the horse in constant work, whether training, racing or on the road.

One flask of "Radiol" will make a gallon of valuable leg wash.

Dear Sirs—I have found Radiol very effective in reducing capped hocks and similar enlargements on horses' legs, and I therefore consider your claim that it is a necessary stable requisite quite genuine. Yours faithfully, W. M. PRICK, Estate Manager to the Earl of Minto, Howick, N. B., England.

WRITE FOR ILLUSTRATED BROCHURE AND CURE OF "RADIOL." Ask your chemist for "RADIOL." Price \$2 a large flask, or post free from

Canadian Agent: Thos. Reid, 9 St. Nicholas St., Montreal. Manufactured by The Radiol Co., 215 Westminster Bridge Road, London, England.

MR. A. I. HICKMAN

Court Lodge, Egerton, Kent, England, exports pedigree live stock of every description to all parts of the world. During the spring months the export of light and heavy horses will be a specialty. Breeders should write and learn how to get in right. Mr. A. I. Hickman will be at the Bell Hotel, Gloucester, Eng., during the week of the Royal Show, and will be pleased to meet all foreign and colonial visitors there.

Dr. Bell's Veterinary Medical Wonder cures inflammation of lungs, bowels and kidneys. The 20th-century wonder. Agents wanted in every county. Write for terms. DR. BELL, V. S. Kingston, Ont.

FOR SALE: Suffolk Punch Stallions Sired by pure-bred Suffolk Punch stallion Ontario. One brown, 6 years old; one s-sirel, 4 years old. THOS. KNAGGS, VANDECAR, ONT.

For Exchange Handsome Chestnut Mare, 6 years old; 15-2½ hands high. Sired by Prince Regent, dam Nellie Rooker. Will exchange for sound general-purpose. Send full particulars. Box R, Farmer's Advocate, London, Ont.

For Sale! Percheron and French Draft Stallions, mares and colts. Duroc-Jersey Swine, both sexes. JACOB STEINMAN, NEW HAMBURG, ONT. Only a stone's throw from G. T. R. depot.

Shires, Shorthorns and Lincolns We are now offering eight specially good young bulls, richly bred, and will be priced right; also a dozen heifers. Some choice young Shire fillies. And Lincolns of both sexes. John Gardhouse & Sons, Highfield, Ont. Weston Station.



Make the Lame Horse as Sound as Ever—Keep Every Horse in Prime Condition With

Tuttle's Elixir

No other remedy has such a record for curing spavin lameness, splints, curbs, shoe boils, thrush, swellings, cuts, etc., as well as colic, founder and distemper.

All over the country, in over 100,000 stables, Tuttle's Elixir has proved itself the dependable

and safe remedy for all the ailments mentioned, and has won and proved its title of "The Old Reliable Standby."

Tuttle's Elixir has put many injured, limping, blemished horses in condition after veterinarians and other preparations have failed.

Makes Best Leg and Body Wash as proved by the fact that it is the only lotion used by owners of most famous race horses. Send for the proofs. And let us tell you why Tuttle's succeeds where others have failed. Write us today for our

Valuable Veterinary Book, FREE It is called "Veterinary Experience" and it is the life-long experience of Dr. Tuttle, boiled down into a clear and concise guide for every horse owner in all emergencies. It is free to you, but you'll find it worth dollars. No matter how much you know about horses, you'll find some new and valuable pointers in this book. It deals also with: Tuttle's Family Elixir—White Star Liniment—American Condition Powders—American Worm Powders—and Hoof Ointment.

Ask your dealer for Tuttle's Remedies. If not there, we'll send by express. Don't experiment. Get Tuttle's and be sure. Write us now for the Free Book. TUTTLE'S ELIXIR COMPANY, 66 Beverly Street, BOSTON, MASS. 62 Gabriel Street, Montreal, Canada

Clydesdale Stallions and Mares!

A fresh lot has just arrived, including many prizewinners. Some extra big ones. Prices right. Inspection invited.

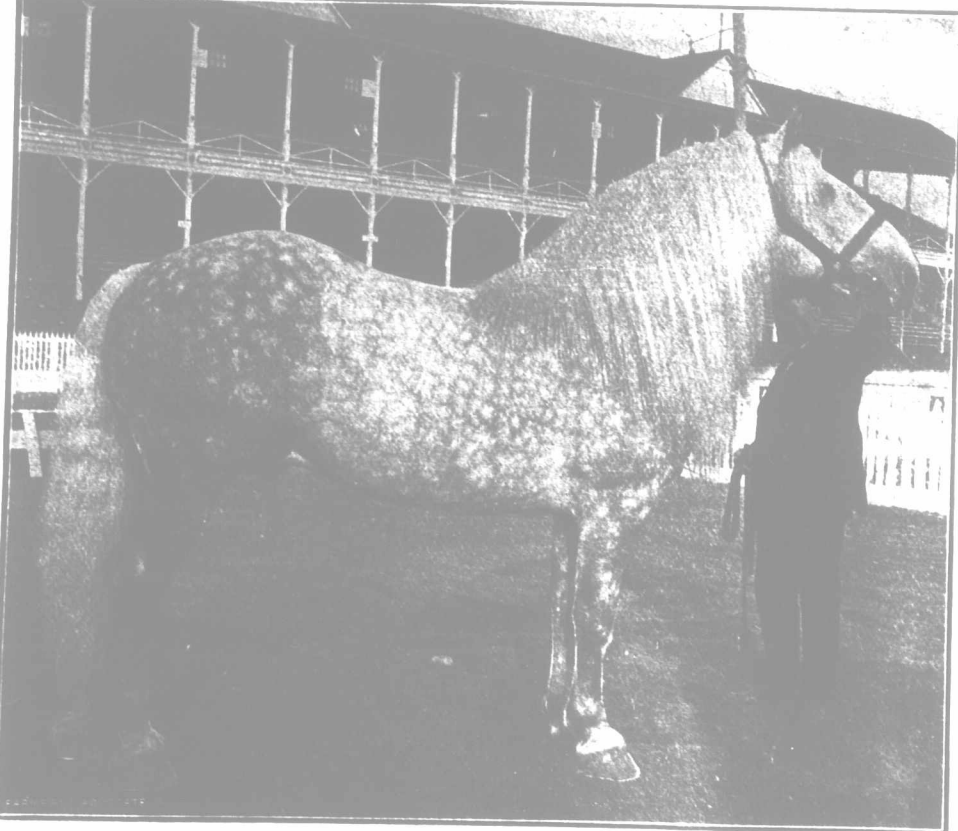
DALGETY BROS., LONDON, ONTARIO. Stables Fraser House. Address correspondence to Dalgety Bros., Glencoe, Ont.

CLYDESDALES AND SHORTHORNS.—Both Imported and Canadian-bred, at Columbus, Ont., the Home of the Winners. Our last importation landed in August. They include the pick of Scotland, from such renowned sires as Baron's Pride, Everlasting, Baron o' Bucklyvie, Hiawatha, Marsells, Sir Everest, and Prince Thomas. We have on hand over 30 head to choose from, from the above noted sires, from 1 to 6 years old, and including stallions and mares. Correspondence solicited. Call and see them at our barns, Columbus, Ont., before purchasing elsewhere. Our prices are right. Long-distance phone in houses. Phone office, Myrtle station, C.P.R.; Brooklin station, G.T.R.; Oshawa station, G.T.R. **Smith & Richardson & Sons, Columbus, Ont.**

Imported Clydesdale Stallion to Rent "Lord Cathcart" Imp. (13064); sire Pride of Blacon (Scottish Champ.); g. sire Baron's Pride. Five years; brown; white points; sound; quiet. A proved sire of grand stock. \$285 for season, payable Feb. 1910, with option purchase. Rare chance. Also beautiful Hackney yearling colt and mares. MOUNT VICTORIA STOCK FARM, HUDSON HEIGHTS, P. Q. T. B. MACAULAY, PROPRIETOR. ED. WATSON, MANAGER.

Oak Park Stock Farm Co., Ltd., have at present for sale a choice selection of young HACKNEYS broken to harness, well worth moderate prices. Also 70 choice SHROPSHIRE RAMS and EWE LAMBS, all bred from imported ewes, and sired by the best imported rams. Will be sold at times prices. **JAS. J. BROWN, Manager, BRANTFORD**

IMPORTED SHIRES At their St. Thomas stables, the John Chambers & Sons Co., of England have for sale stallions and fillies from their noted Shire stud, high-class representatives of the breed. Correspondence solicited. Address **DR. C. K. GEARY, St. Thomas, Ont.**



IMPORTED Percherons

OUR NEW IMPORTATION OF **15 Selected Percheron Stallions,**

2 to 6 years old, blacks and greys, landed December 10th, 1908, all in good shape and doing well. The best importation we have ever made. All bred by the best breeders in France. Are big, wide horses, with the best of feet and legs, beautiful heads and necks. Also **TWO HACKNEYS**, the right kind. These horses are all for sale at reasonable prices and on easy terms. Stables in Town of Simcoe, Norfolk Co., 82 miles south-west of Toronto. Address:

Hamilton & Hawthorne, Simcoe Ont.

GOSSIP.

He—"Fifty miles an hour! Are you brave?" She (swallowing another pint of dust)—"Yes, dear. I'm full of grit." —Chicago News.

March 4th, at Woodstock, combination sale of high-class imported and Canadian-bred Shorthorns, by John T. Gibson, Denfield; Capt. T. E. Robson, London; Wm. Waldie, Stratford; H. J. Davis, Woodstock.

WOODSIDE CLYDESDALES AND BURNSIDE AYRSHIRES

Messrs. R. Ness & Sons, of Howick, Que., the veteran Clydesdale, Percheron, Hackney and French Coach horse importers of Canada, are still to the fore with a choice selection of high-class animals. Although the last few months have been among the very best in Mr. Ness' half century of experience in the selling of breeding stock, there are still a few left in the Woodside stables, that for a beautifully-blended combination of smoothness, size, style, quality and action, are the sort to please the eye of the most exacting critic. In Clydesdales, Acrobat (imp.) (7971), is a bay four-year-old, by Alexander Everard, by Sir Everard, dam by Baron's Pride. This horse was first in his class at Montreal, in spring of 1908. Fyvie Prince (imp.) (6126) is a brown four-year-old, by Baron's Pride, dam by Prince Thomas, exceedingly fashionable breeding and a beautiful, smooth horse. Fusilier (imp.) (134-2) is a brown three-year-old, by Baron's Pride, dam by Macgregor, g. d. by Cedric, a right good colt, and right royally bred. Indomitable (imp.) (14465) is a bay yearling, by the great Baron's Pride horse, Benedict, dam by Prince of Clay. This splendid colt was a winner at Toronto and Ottawa last fall. Hiawatha's Heir (imp.), is a brown three-year-old, by Hiawatha, dau by Fickle Fashion. This colt is one of the extra good kind, and moves like a machine. There are also several imported and Canadian-bred Clydesdale mares, winners; also several foals. Rysdale Revival (imp.), is a bay Hackney stallion, by Revival; a right good one, with superb action and finish. Then there are two imported French Coach stallions, aristocrats of this great heavy harness breed, one a bay four-year-old, 16 hands high, that won first and championship at the Dominion Exhibition, Sherbrooke, 1907, and second at Ottawa, 1908. The other is a brown three-year-old, a winner. All these horses are for sale, at living prices.

Ayrshires.—Mr. R. R. Ness, owner of Burnside Farm, is the well-known importer and breeder of Ayrshire cattle, at Howick, Quebec. There is probably no other man on the American Continent today so well and favorably known as an importer of the best Ayrshire cattle procurable in Scotland as Mr. Ness. Although a man young in years, he is everywhere recognized as one of the most expert judges of Ayrshire cattle alive, and to bear this out we have only to point to his remarkable success at the leading Canadian exhibitions, and at the Chicago International, as well as to the wonderful success of cattle of his importation and breeding in almost every State of the Union. His indomitable energy and artistic business ability, is one of the main factors of his great success. His herd now numbers about 175 head, practically all imported, or from imported stock, at the head of which is the many-times grand champion, King's Own of Barcheskie (imp.), a bull pronounced by experts one of the most perfect of the breed. Of the females, 19 are now in the Record of Performance, and 11 more are now in the test. Some idea of the extent of Mr. Ness' business in Ayrshire cattle may be gained from the fact that only lately he has shipped two earloads to Seattle, Washington, as well as smaller lots to several States of the Union, while a young bull, sired by King's Own, and out of the \$1,200 cow, Denty 9th, went to the Experimental Farm at Ottawa for a good long figure. With the exception of calves, there are no bulls left so great is the demand. Mr. Ness is shortly starting for Scotland for a new importation, and is prepared to select for all who may favor him with their orders.

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Importer and breeder of high-class pure-bred **CLYDESDALES.** Farmers or ranchmen starting breeding Clydesdales, pure or grade, specially invited to correspond.

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QUESTIONS AND ANSWERS. Veterinary.

MISCELLANEOUS.

1. Horse has an enlargement on his shoulder. This was caused by a collar bruise. It is hard. How can I remove it without taking horse from team?

2. When a horse's feet are contracted, is it better to keep the soles pared down thin or not?

3. Can you give me the prescription for scratches of a lotion made of tanner's oil, turpentine and sulphuric acid? F. M. C.

Ans.—1 This cannot be reduced without giving the horse rest, as the friction from the collar acting upon the tumor and surrounding tissues would complicate matters. The tumor should be carefully dissected out, the wound stitched, and then dressed three times daily with an antiseptic, as a 5 per cent. solution of carbolic acid, until healed. External applications will not remove it.

2. It is better to leave the sole alone. It will exfoliate sufficiently without the use of the knife.

3. I do not know of any such mixture used for the purpose, and cannot imagine it mixed in any proportions that would make it valuable for such cases. When an oil is used, we generally use 1 part carbolic acid to 30 parts sweet oil. V.

Miscellaneous.

LIABILITY FOR NOTE.

If A takes B's note for a certain sum of money, and C endorses it, the note being drawn up payable in bank six months after date, ten days before note became due, A notifies B and C by private letter, but B had left the country. Can A hold C responsible for the amount? SUBSCRIBER.

Ans.—Yes.

MILK QUALITY AND FEED.

Can you improve the quality of a cow's milk by feeding; if so, to what extent? W. S.

Ans.—Only in so far as clean, wholesome food, given judiciously, will give more desirable flavor and color. You cannot permanently increase the percentage of fat in the milk to any extent worth mentioning, but, of course, can increase the total quantity of milk given.

FEEDING LAMBS.

Have some (6) lambs, fattening for spring market; have them housed in part of an old hay barn. They have access to the driving floor, which is open to the roof, and bottom part of hay mow, six feet high, which has at present some corn fodder stored above. They have plenty of room for exercise and ample ventilation, but are not permitted to run in the yard. Their food consists of field-cured fodder-corn, cut into half-inch lengths, and pulped roots, mixed, morning and evening; a small feed of clover hay at noon, and a grain ration of half pound mixed peas and oats per day. They are not thriving as they should, and their wool is constantly wet, or damp. They have good appetites, always ready for their feed. Would you please, through your columns, advise what is wrong with our management, and suggest something that would give more satisfactory results? RUSSELL.

Ans.—The feeding and conditions stated should give good results, and we can only suggest that since the lambs appear to be sweating inordinately, access to a yard in which they may run and lie at will, would probably be an improvement. They should also have access to salt, and water at will.

At the leading poultry shows throughout the country, a hen called "Peggy" is being exhibited. This hen is supposed to be worth \$10,000. We have no good reason to doubt this statement. At the present price of eggs, even an old barnyard fowl that is doing anything at all for her country, is a pretty valuable piece of property. It is no longer a goose, but a hen, that is laying golden eggs.—Judge.

Gombault's Caustic Balsam

The Worlds Greatest and Surest

Veterinary Remedy

HAS IMITATORS BUT NO COMPETITORS!

SAFE, SPEEDY AND POSITIVE.

Supersedes All Cautery or Firing. Invaluable as a CURE for

FOUNDER, WIND PUFFS, THRUSH, DIPHTHERIA, SKIN DISEASES, RINGBONE, PINK EYE, SWEENY, BONY TUMORS, LAMENESS FROM SPAVIN, QUARTER CRACKS, SCRATCHES, POLL EVIL, PARASITES.

REMOVES

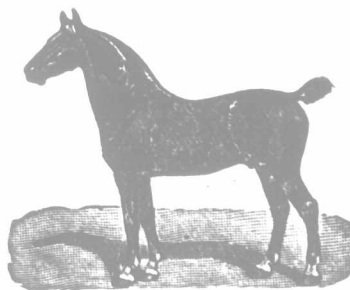
BUNCHES or BLEMISHES, SPLINTS, CAPPED HOCK, STRAINED TENDONS.

SAFE FOR ANYONE TO USE.

We guarantee that one tablespoonful of Caustic Balsam will produce more actual results than a whole bottle of any liniment or spavin mixture ever made. Every bottle sold is warranted to give satisfaction. Write for testimonials showing what the most prominent horsemen say of it. Price, \$1.50 per bottle. Sold by druggists, or sent by express, charges paid with full directions for its use.

The Accepted Standard VETERINARY REMEDY

Always Reliable. Sure In Results



None genuine without the signature of The Lawrence-Williams Co. Sole Importers & Proprietors for the U.S. & CANADA. CLEVELAND, O.

THE BEST FOR BLISTERING.

I have used GOMBAULT'S CAUSTIC BALSAM quite a good deal, and for a blister it's the best I ever used. I wish your remedy every success. CHAS. MOTT, Manager, Mayfield Stud Farm, Leesburg, Va.

CURED CURB WITH TWO APPLICATIONS.

Have used your GOMBAULT'S CAUSTIC BALSAM to cure curb. I blistered it twice, and there is no sign of it any more. The horse is as good as ever.—DAN SCHWEB, Evergreen, Ill.

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PREMIUM AND PRIZE Clydesdales

I have recently landed my choicest importation of premium and prize Clydesdale stallions in 30 years' experience.

Size and quality to suit. Come and see the winners at home. Everybody welcome.

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My new importation of 24 Clydesdale stallions is now in my stables. I invite inspection and comparison. I think I have the best lot for size, style, character, quality and action ever imported. 27 Clyde stallions and 8 Hackney stallions to select from. Prices right, and terms to suit.

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Clydesdales and Hackneys

We have for sale a few choice Clydesdale mares, imported and Hackney stallions and mares for sale always. HODGKINSON & TISDALE, BEAVERTON, ONTARIO. G. T. R. and C. N. R. Long-distance phone.

Imported Clydesdales

All have great size, smoothness, quality, on the best of bottoms, and royally bred. WM. COLQUHOUN, MITCHELL, ONT.

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Combination Sale of Imported and Canadian-bred **SCOTCH SHORTHORNS**

At Woodstock Sale Pavilion, on March 4, '09, 1 p. m.

The offering comprises many animals of high merit and breeding, two of the bulls being imported, and the others mostly eligible for American Herdbook. The females are young and mostly bred to first-class bulls. Contributors are:

Mr. J. T. Gibson, Denfield; **T. E. Robson, London;**
Wm. Waldie, Stratford; **H. J. Davis, Woodstock.**

For Catalogues apply to: **H. J. Davis, Woodstock, Ont.**

Boog 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—Boog Spavin, Thoroughpin, Splint, Orb, 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 limited. Easy to use, only a little required, and your money back if it ever fails.

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For proof that fits can be cured, write to

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For pamphlet giving full particulars of simple home treatment. 20 years success. Over 1,000 testimonials in one year. Sole proprietors:

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ABERDEEN - ANGUS CATTLE!

FOR SALE: Some of the best strains. Several fine heifers; also cows and a couple of bulls. Apply: **MANAGER,**

GRAPE GRANGE FARM, CLARKSBURG, ONT.

Angus Cattle for Sale—A few choice females and juveniles. Prices right. Three miles west of Erin, C. P. R., 16 miles north-east of Guelph.

J. W. BURT, Coningsby P.O., Ont.

Aberdeen-Angus

For sale: The right sort, some of them by Klondyke, imp. Drumbo station.

WALTER HALL,
Washington, Ontario.

GOSSIP.

The Tenth International Conference of Sheep-breeders will be held on Monday, June 21st, 1909, in the Guild Hall, Gloucester, England. The subject for discussion is one of world-wide interest, "How Can We Improve the Sheep Industry?" Mr. George McKerrow, Pewaukee, Wisconsin, will open the discussion by reading a paper upon this important matter. The Council will be pleased to welcome any representative of Government or Society interested in sheep-breeding, and solicits an early intimation of the name, home address, and address while in England, of such representative. For particulars, address the Secretary, Mr. W. W. Chapman, 4 Mowbray House, Norfolk St., Strand, London, W. C., England.

BELMAR PARC SHORTHORNS.

Since its founding a few years ago, the Belmar Parc herd of Scotch Shorthorns, the property of Mr. Peter White, of Pembroke, Ont., have made an enviable reputation for superiority of type and right royal breeding second to none in the Dominion, the direct result of good management and business ability in purchasing both male and female foundation stock. The splendid demand for breeding stock from this herd is the surest indication that excellence of pedigree and individuality are the predominating features of the herd. Seventy-five head make up the sum total comfortably housed in the commodious stables just now, on blood lines representing the Miss Ramsden, Cruickshank Lavender, Nonpareil, Duchess of Gloster and Sunshine, Bruce Augusta, Mayflower and Countess, the Broadhooks, Wimple, Lady Dorothy, Mysie, Beatrice, Marr Blyth-some, Maggie, Collynie Rosewood, Crimson Flower, Rosa Hope, Undine and Avenir strains; an array of breeding unexcelled in any herd in America. Fourteen of the breeding females are imported, many of the others have imported sire and dam, a number are Toronto and other prominent winners. The whole herd is characterized by the low-down, thick-fleshed, good-doing and early-maturing type. At the head of the herd is the quartette of richly-bred bulls, Imp. Nonpareil Archer (45202), a Cruickshank Nonpareil, by the great Prince of Archers, dam Nonpareil Blossom 2nd, by Sittytan Sort, Marigold Sailor 53258, twice a Toronto junior champion, by Sailor Champion, a son of the great sire, Imp. Royal Sailor. Proud Gift (imp.) by Golden Gift, dam by Minnie of Dalmeny. Proud Gift has sired several Toronto winners. Bandolier (imp.) is a Butterfly, by Sittytan Royal, dam by King's Own, the whole making a galaxy of stock bulls of exceedingly high merit and they have proven their ability to produce the following progeny. In the herd are also a number of young things, mostly females, that are of low time and some bulls the size of a cow. Particularly noteworthy are the old Wimple, by Prince of Archers, that looks like a coming star.

RAW FURS and HIDES

Write for Weekly Price Lists. Shipments Solicited.

JOHN HALLAM - TORONTO, ONT.

Poultry Tonic

INCREASES EGG PRODUCTION. CURES DISEASE

1 1/2 lbs., 25c. By Mail, 35c.

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Louse Killer

KILLS LICE ON POULTRY AND STOCK.

SATISFACTION GUARANTEED

1-lb. Can, 25c. By Mail, 35c.

THE HACKNEY STOCK TONIC COMPANY, TORONTO, ONTARIO.

10 Imported Scotch Shorthorn Bulls 10

Personally selected from the leading Scotch herds. Now in quarantine. Will be for sale at my farm first week in January. They are of such noted families as Broadhooks, Butterfly, Claret, Clara, Roan Lady and Jilt. I also have for sale four bull calves from imp. sire and dam, and a number of good young cows and heifers. Catalogue being prepared. Write for one. Prices, as well as quality and breeding, will please you. Farm 1/4 mile from Burlington Junction station, G. T. R.

FRED BARNETT, MANAGER. **J. F. MITCHELL, BURLINGTON, ONT.**

WE ARE PRICING VERY REASONABLY

10 Choicely-bred Young Shorthorn Bulls

Also one extra good imported bull, 22 months old. We have always something good to offer in females. Imported or home-bred. Write for what you want, or come and see them. Bell phone at each farm. **W. G. PETTIT & SONS,** Farms close to Burlington Jet. Sta., G. T. R. **FREEMAN, ONTARIO.**

SOME SHOW PROPOSITIONS IN BOTH MALE AND FEMALE

SHORTHORNS

as well as a number of the useful sort of both sexes. Prices right. Large lot to select from. Up-to-date in breeding, etc. Catalogue.

JOHN CLANCY, Manager. **H. Cargill & Son, Cargill, Ont.**

VALLEY HOME Shorthorns and Berkshires

For sale: Six young bulls fit for service, and young cows and heifers; some are choice show animals. Also ten fine young Berkshires sows of prolific strains. Write, or come and see our stock. Visitors welcome.

S. J. Pearson, Son & Co., Meadowvale, Ont.

Stations: Meadowvale, C. P. R., and Brampton, G. T. R.

Pleasant Valley Herd

Present offering: 7 high-class young bulls by Imp. Ben Lomond = 45160 = (80468) and Bud's Emblem = 63860 =, and good imp. and Canadian-bred dams. Write for particulars and prices, or visit personally.

GEO. AMOS & SON, Moffat Station and P.O.
Moffat is 11 miles east of Guelph on C. P. R.

First Sale of Salem Shorthorns, Feb. 3, 1909

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

AN OPPORTUNITY TO SECURE YOUNG Shorthorn Bulls

Combining **Substantial Individuals** with **Rare Breeding.** A few heifers will be sold cheap.

MAPLE SHADE FARM. STATIONS: MYRTLE, C. P. R. / BROOKLIN, G. T. R.

Long-distance telephone. **JOHN DRYDEN & SON, BROOKLIN, ONT.**

SUBSCRIBE FOR "THE FARMER'S ADVOCATE AND HOME MAGAZINE."

QUESTIONS AND ANSWERS.
Miscellaneous.

ADMINISTERING AN ESTATE.

Is there any definite time prescribed by law when a widow, whose husband has died without a will, should, or is required to begin proceedings for administration papers? SUBSCRIBER, Ontario.

Ans.—No; but generally speaking, it should be attended to without any delay that may be reasonably avoided. Just how urgent the matter may be must mainly depend upon the circumstances of the estate and those interested in it, whether as widow, next of kin, or creditors.

PRUNING IN COLD WEATHER.

Would it be injurious to apple trees to trim them in the cold winter weather? E.K.

Ans.—In cold climates it is generally considered advisable to delay the pruning until the cold winter weather is past. In the part of Ontario (Welland Co.) from which our correspondent writes, pruning of apple trees in late winter is safe. June is by many considered the best time for pruning, but on many farms this is a busy season, and if left till then the work is liable to be neglected.

RINGWORM.

If convenient, please publish a cure for ringworm on cattle. SUBSCRIBER.

Ans.—In an extended experience, we have never failed to cure ringworm by the application of a mixture of sulphur and lard well rubbed in, and repeated, if necessary. A little coal oil added improves the mixture. The action of this mixture will be surer and quicker if the scale is first washed with warm soapsuds, and the scale broken up with the finger nails. The hands should be well cleaned after handling ringworm, as it has been in some cases, contracted by men. Softening the scales with sweet oil and dressing with tincture of iodine every day as long as necessary, is a professional prescription.

CORN FOR HUSKING.

Would 50 per cent. of Compton's Early corn and 50 per cent. Duke's Improved Sweet be a profitable mixture as a husking corn? If not, why? A. R.

Ans.—It would not be advisable to plant these varieties together for husking, as Duke's Improved Sweet is not suitable for the purpose, being a sweet corn such as canning factories use, and for table purposes. It is also of great value for late summer and fall feeding of milch cows, being cut and fed, fodder and cob, in a green state.

It has a large and very leafy stock, and a large amount can be grown on a small bit of land, where it is not planted too thickly. Three grains in a hill, three feet eight inches apart, each way, is about right.

For Northumberland County, Compton's alone is a good husking corn; King Phillip, Longfellow, or North Dakota, would also be good, but best of all would be an early type of White Cap Yellow Dent. J. O. DUKE.

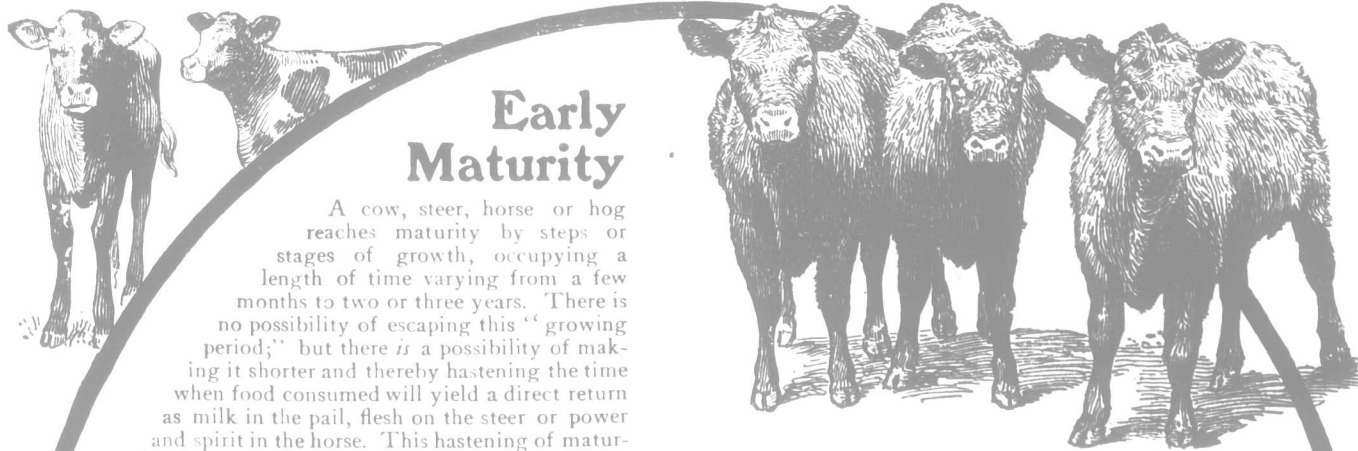
REGISTERING SHROPSHIRE.

1. Having bought some pure-bred Shropshire lambs at a sale, how should I proceed to have them registered in my name? What are the terms to become a member of that association (Shropshire Breeders').

2. Is there any help for a young cow stilled so that she can't get up? SUBSCRIBER, Princeton, Ont.

Ans.—If the lambs had been registered in the name of the breeder, you should get him to sign a transfer of them to you. If not recorded, you will require to have the application for registry signed by the breeder of the lambs. Blank forms for transfer, and also for registration, may be had on application to "Accountant," Live-stock Records, Department Agriculture, Ottawa. Full instructions are printed on back of these application forms. Membership fee to the Dominion Sheep-breeders' Association is \$1.00.

2. It is very doubtful. The only hope would be to put and keep her in stings for considerable time, and blister the legs repeatedly.



Early Maturity

A cow, steer, horse or hog reaches maturity by steps or stages of growth, occupying a length of time varying from a few months to two or three years. There is no possibility of escaping this "growing period;" but there is a possibility of making it shorter and thereby hastening the time when food consumed will yield a direct return as milk in the pail, flesh on the steer or power and spirit in the horse. This hastening of maturity is accomplished by increasing digestion so that the growing animal has more flesh and bone forming elements to use; and digestion is made stronger by putting in practice "The Dr. Hess Idea," which teaches that bitter tonics, iron for the blood and cleansing nitrates *always* act beneficially upon animal organs.

DR HESS STOCK FOOD A TONIC

is the outcome of "The Dr. Hess Idea," and was formulated by Dr. Hess (M.D., D.V.S.) because his medical knowledge led him to see clearly the vast importance to the stock industry of such a prescription. If you bear in mind the fact that your animal is but a machine turning a certain amount of raw material (food) into a finished product (milk or flesh), you get a very clear understanding of the reason back of "The Dr. Hess Idea" and its benefits are at once apparent. The ingredients in Dr. Hess Stock Food meet with the unqualified approval of such experienced men as Professors Winslow, Quitman and Finlay Dun. It is certain to increase the flow of milk; to lessen the time required to fatten a steer or hog and to be very beneficial to horses. Chemical analysis of manures from Hess fed cattle show the value of this prescription, there being less waste found in the droppings.

The dose of Dr. Hess Stock Food is small and fed but twice a day.
100 lbs. \$7.00; 25 lb. pail \$2.00. Smaller quantities at a slight advance. Duty paid. DR. HESS & CLARK, Ashland, Ohio, U. S. A.

Also Manufacturers of Dr. Hess Poultry Pan-a-ce-a and Instant Louse Killer.
Free from the 1st to the 10th of each month—Dr. Hess (M.D., D.V.S.) will prescribe for your ailing animals. You can have his 96-page Veterinary Book any time for the asking. Send 2c stamp and mention this paper.

DR. HESS POULTRY PAN-A-CE-A

Success with poultry is an assured fact when you give daily a little of Dr. Hess Poultry Pan-a-ce-a in soft feed. This is a powerful assistant to the digestive organs, and by making more food available, increases very much the production of eggs. The strengthening of digestion by means of a tonic is known as "The Dr. Hess Idea," and is endorsed in both this country and Canada. Poultry Pan-a-ce-a, formulated by Dr. Hess (M.D., D.V.S.), contains just the elements to increase appetite and relish—bitter tonics, iron and nitrates—good for digestion, the blood and to cleanse out of the system poisonous matter. It is a guaranteed producer of eggs; fatten a market bird in the least time and shortens the growing period for young chicks. It also cures gapes, roup, cholera, etc.

A penny's worth is sufficient for 30 hens one day. Sold on a written guarantee. Send 2c for Dr. Hess 48-page Poultry Book, free.
1 1/2 lbs. 25c; 5 lbs. 85c; 12 lbs. \$1.75; 25 lb. pail \$8.50. Duty paid.

INSTANT LOUSE KILLER KILLS LICE

Scotch Shorthorns Canada's greatest living sire, Mildred's Royal, heads my herd. For sale are young bulls and heifers, show stuff and Toronto winners, out of Stamford, Lady Ythan, Claret, Emeline, Matchless and Belona dams. A visit will be appreciated. GEO. GIER, Grand Valley P. O., Ont. Waldemer Sts., C. P. R.

TWO IMP. BULLS of excellent quality, color and breeding. One 7 months old, sired by imp. Joy of Morning = 32070 =; dam Blossom 2nd, imp. Also heifer calves and young cows, and heifers in calf. And choicely-bred Yorkshires of either sex. Prices very moderate. GEO. D. FLETCHER, BINKHAM P. O., ONT. Erin Station, C. P. R.

SHORTHORNS!

Five bulls, sired by Lord Lieutenant, imp., one from imported dam. Cows and heifers from Lord Lieutenant, and now bred to Good Morning, imp., our present stock bull. All will be priced low, considering quality and breeding. Office near both stations.

SCOTT BROS., HIGHGATE, ONT. M. C. Ry. P. M. Ry.

Scotch Shorthorns

Bell telephone at each farm. Farms only 1/2 and 1 1/2 miles from Burlington Jct., G. T. R.

BULLS: 4 choice yearlings, IMPORTED; 8 yearlings and a number of choice calves of our own breeding. FEMALES: A number of cows and heifers forward in calf, including showyard material. Tempting prices. W. G. PETTIT & SONS, FREEMAN, ONT.

SHORTHORNS

Nine bulls from 8 to 20 months old, reds and roans; 10 yearling heifers and a few cows. Will sell very cheap to make room in stables.

CLYDESDALES

One pair of bay mares and one dark brown, heavy draft and two spring colts.

JAMES McARTHUR, Gobles, Ontario.

1854 MAPLE LODGE STOCK FARM 1908

A few extra good young SHORTHORN bulls and heifers for sale.

LEICESTER ram lambs by the grand champion ram, "Sanford." Right good ones, and a few choice ewes.

A. W. SMITH, MAPLE LODGE P. O., ONT. Lucan Crossing Station, G. T. Ry.

Shorthorns! BELMAR PARC

John Douglas, Peter White, Manager, Pembroke, Ont.

Calves for sale by our grand quartette of breeding and show bulls:

Nonpareil Archer, Imp. Proud Gift, Imp.

Marigold Sailor. Nonpareil Eclipse.

Females, imported and from imported stock, in calf to these bulls.

An unsurpassed lot of yearling heifers.

Shorthorn Cattle AND LINCOLN SHEEP.

Females of all ages for sale of the thick-fleshed, low-down kind that have been raised naturally, neither stuffed nor starved. Twenty-five Lincoln ewes, bred to our best imported stud ram, also a few choice yearling rams. Prices very reasonable for quick sale.

J. T. GIBSON, DENFIELD, ONT.

A. Edward Meyer,

P. O. Box 378, Guelph, Ontario, Breeds SCOTCH SHORTHORNS Exclusively

Twelve of the most noted Scotch tribes have representatives in my herd. Herd bulls: Scottish Hero (imp.) = 55042 = (90065) 295765 A. H. B.; Gloster King = 68703 = 283804 A. H. B. Young stock for sale. Long-distance phone in house.

WILL MAKE PRICES ON THE FOLLOWING LIST OF Shorthorns, Clydesdales, Shropshires and Cotswolds

That No Man Keeping Live Stock Can Afford To Overlook:

Two imported bulls, tried sires, very valuable, will sell or exchange at moderate price. One Clydesdale filly coming three, from imported sire and in a show mare. A small number of imported cows and heifers, and some splendid young bulls and heifers from imported sires and dams. Good young Shropshire and Cotswold ewes in lamb to high-class imported sires.

ROBERT MILLER, Stouffville, Ont.

HAWTHORN HERD OF DEEP-MILKING Shorthorns

For Sale: 6 young bulls and 10 heifers, sired by Aberdeen Hero (imp.) = 28840 =. Some bred to the Lavender bull, Lavender Lorne = 68706 =.

WM. GRAINGER & SON, London, Ontario.

Shorthorns, Cotswolds, Berkshires.

In Shorthorns, over 50 head—cows, heifers and calves from 2 to 8 months. In Cotswolds, shearing ewes and ram and ewe lambs. In Berkshires, a few young sows.

Chas. E. Bonnycastle, Campbellford, Ont. Post Office and Station.

Spring Valley Shorthorns.

Ten bulls from 9 to 15 months, including two recently imported bulls from noted herds in Scotland; also Broadhooks Chancellor, winner of 1st at Toronto. Don't fail to see them before you buy.

Kyle Bros., Ayr, Ont., P. O. and Station

Greengill Shorthorns!

We offer for sale our herd bull, imp. Lord Roseberry, also young bulls and females all ages, either imp. or from imp. stock. Prices right. Long-distance phone.

R. Mitchell & Sons, Nelson P. O., Ont. Burlington Jct. Sta.


Cattle and Sheep LABELS!

Metal ear labels, with owner's name and address, and numbers. Sample and prices mailed free. F. G. James, Bowmanville, Ont.



GOES LIKE SIXTY BELLS LIKE SIXTY BELLS FOR \$65 GILSON GASOLINE ENGINE For Pumping, Cream Separators, Churns, Wash Machines, etc. FREE TRIAL. Ask for catalog—all sizes. GILSON MFG. CO., 150 York St., Guelph, Ont.


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. Durably bound, indexed and illustrated. Write us for a free copy.

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


Scotch Shorthorns



Four young bulls recently imported, one Brawith Bud, a grandson of Bapton Diamond; two Kiblean Beautys and one a Marr Emma; also Canadian-bred bulls, and a grand lot of heifers.

H. J. Davis,
Woodstock, Ont.
Long-distance Bell 'phone. C. P. R. & G. T. R.


MAPLE HOME SHORTHORNS



Our present offering is several very choice and richly-bred one- and two-year-old heifers, and three yearling bulls. A way above the average. Pure Scotch and Scotch-topped.

A. D. SCHMIDT & SONS
Elmira, Ont.

CLOVER DELL SHORTHORNS



My herd are profitable milking Shorthorns. For sale are a few females and two good red bulls, of good milking dams, for spring service. **L. A. Wakely, Bolton, Ont., P.O. and Station.** Farm within 1/2 mile of station.

Spruce Lodge Shorthorns and Leicesters.

In Shorthorns, we are offering young bulls and heifers, by imp. sires and out of heavy-milking dams. In Leicesters, we have a grand lot of shearing rams and ram lambs, and one and two year old ewes of No. 1 quality.

W. A. DOUGLAS, TUSCARORA P. O., ONT.
Colodonia Station.

Athelstane Shorthorns

For sale: 5 young bulls and females—all ages. Some extra choice heifers. All of popular Scotch families. Roan Chief (imp.) = 40865 = heads the herd. **WM. WALDIE, Box 324, Stratford, Ontario.**

Brownlee Shorthorns

Three young bulls left yet, 14 to 16 months. Will sell at a bargain. Also a few heifers. Very reasonable. Good milking strains.

C. P. R. station. D. BROWN, AYR, ONT.

Scotch Shorthorns

We now offer four heifer calves 10 and 11 months old. All reds. Bred from imp. sire and dams. Will be sold right. **C. RANKIN & SONS, Wyebridge P.O., Ont. Wyevale Stn.**

Champ Clark loves to tell of how in the heat of a debate Congressman Johnson, of Indiana, called an Illinois representative a jackass. The expression was unparliamentary, and in retraction Johnson said:

"While I withdraw the unfortunate word, Mr. Speaker, I must insist that the gentleman from Illinois is out of order."

"How 'am I out of order?" yelled the man from Illinois.

"Probably a veterinary surgeon could tell you," answered Johnson, and that was parliamentary enough to stay on the record.

Black Watch

A new sensation.
A real pleasure.
The big black plug.

Chewing Tobacco

2270

QUESTIONS AND ANSWERS. Miscellaneous.

GRAFTING-WAX.

Please give a good recipe for making grafting-wax. **F. G. G.**

Ans.—Melt together rosin 4 parts, by weight, beeswax 2 parts, tallow 1 part; pour into cold water, grease your hands and pull till nearly white.

UNTHRIFTY COLT.

My spring colt is very unthrifty; his appetite is poor and he is very thin. A V. S. said the colt had worms; but his treatment did no good. Please prescribe. **OLD SUBSCRIBER.**

Ans.—Get your druggist to mix three ounces each of sulphate of iron, gentian, ginger and nux vomica, and divide into forty-eight powders. Give a powder three times a day in a half pint of cold water as a drench. Feed bran and chopped oats, and good clean hay, and keep comfortably warm, with good ventilation.

A WAYWARD BOY.

What is to be done with a lad 12 years old that is going from place to place, staying a few days, and then going on? He is lazy and saucy, and his friends are in the States and do not care anything about him. I think they are very poor people. He came to my place on June 13th, very poorly dressed. We gave him some clothes, but we do not need him, as we only have a few chores. If he goes to a farmer and the farmer scolds him, he leaves and goes on, and now he hasn't any place to go. Is there a place for such boys? What must I do to get him there? Do not like to put him out in the cold. **C. J. T.**

Ans.—If there be a society or other organization in the neighborhood for the care of such children, it would be well for you to consult with the officers thereof. If not, then see a magistrate, or the County Crown Attorney.

SKIM MILK FOR COWS, COLTS AND POULTRY.

What is the best way to use skim milk, providing you do not wish to raise calves or pigs? Is it profitable to feed back to milk cows or young horses? **YOUNG FARMER.**

Ans.—Skim milk makes an excellent feed for poultry and may be fed in limited quantities with much advantage to colts, especially weanlings. It may also be profitably fed to milk cows, though a little difficulty may be experienced at first in persuading them to take it. Skim milk is rich in protein, the element which chiefly makes bran, oil cake and gluten-meal so valuable in a dairy cow's ration, and, apart from theoretical considerations, we know more than one dairyman who has fed skim milk to his cows with good results.

KEEPING SILAGE IN CEMENT SILO.

As a subscriber to your valuable paper, in which I get many suggestions in "Questions and Answers," through other correspondents, may I ask the following question:

I am thinking of building a silo. There is no cement silo in my neighborhood, but I am told that the silage will spoil for six inches all around the wall. I would like to hear from those who have had a few years' experience. **E. L. K.**

Ans.—Our inquirer has been misinformed. If the wall is properly built and smoothly plastered, or even washed with cement, and the silo properly filled, there need be no waste whatever around the wall, except a little, perhaps, for a few feet down from the top. A well-constructed, round cement silo will keep the silage at least as well as a first-class stave or hoop silo. Of course, with either, there may be a little waste in an exposed location, from the silage freezing to the walls, and then when it thaws, spoiling before it can all be used up, but this can be largely avoided by keeping it out away from the wall with a sharp plank or shovel as the surface is lowered, letting the frozen chunks thaw out in the yard as a horse feeding, and it necessarily is a little warmer near to thaw out a portion. Where gravel or road chips and clean, dry sand are within a reasonable distance of the farm building, permanently built, a round cement silo is the kind to build.

Made In Canada For 24 Years

Some Metal Shingles are guaranteed to "last a lifetime," by firms which have been making Metal Goods only a few years.

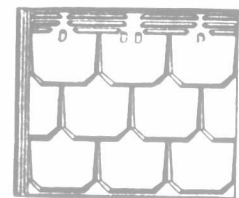
How can they know how long their shingles will wear?

"Perhaps" such shingles will last.

"Perhaps" they are lightning-proof and weather-proof.

You are the one who must take the chances.

There are no "perhaps" about



"EASTLAKE" METALLIC SHINGLES

ON THE ROOFS SINCE 1885

They have defied lightning and fire—resisted snow and rain—protected against leaks and rust—for 24 years. You buy certainty—not supposition—when you buy "Eastlake" Shingles. Because "Eastlake" Metallic Shingles have proved, by 24 years' wear on the roofs, that they are practically indestructible.

Don't buy "a pig in a poke." Don't take chances. Get "Eastlake" shingles, which are sold with a guarantee worth having.


Write for catalogue, which tells about the "Eastlake" side Lock, the new Cleat and other exclusive features, as well as explaining all about the Shingles themselves.

The Metallic Roofing Co., Limited

TORONTO Manufacturers WINNIPEG

Agents wanted in some districts. Write for particulars naming this paper.

Glen Gow Shorthorns



Our present offering is 9 bulls from 6 to 14 months of age, sired by imp. Ben Loman and imp. Joy of Morning, and out of imp. and Canadian-bred cows. Also a number of very choice heifers. No fancy prices asked. Long-distance phone.

WM. SMITH, Columbus, Ontario
Brooklin and Myrtle Sts.

Stoneleigh Stock Farm

E. JEFFS & SONS, breeders of Shorthorns, Leicesters and Berkshires. Young stock of various ages and both sexes for sale. **Bond Head P.O., Bradford and Beeton stations, G. T. R.**

Ayrshires from a Prizewinning Herd

Have some nice bull and heifer calves for sale at reasonable prices. For particulars, etc., write to **WM. STEWART & SON, Campbellford Stn., Menie P.O., Ont.**



Stoneycroft Ayrshires

Choice young bulls and heifers of the very best breeding, combining show and dairy quality.

Large Improved Yorkshire Pigs from imported sires and dams, now ready to ship.

Stoneycroft Stock Farm, Ste. Anne de Bellevue, Que.

AYRSHIRES

Bull and heifer calves from producing dams. Right good ones. Hickory Hill Stock Farm. **N. DYMENT, Clappison, Ont.**

HOWGLEN AYRSHIRES!

For sale: 75 pure-bred registered Ayrshires, all ages; prizewinners; many imported. Apply to **ALLAN P. BLUE, Eustis, Quebec.**

BURNSIDE AYRSHIRES

are in such demand that I have decided to make another importation. I intend attending the great dispersion sale of the world-renowned Bardsley Herd, belonging to Mr. And Mitchell Kirk, Edinburgh, Scot., which some 300 of the choicest Ayrshires ever offered will be sold. Calves entrusted to me will be carefully attended to. Breeders take advantage of this great sale, and respect a few fine good ones. Correspondence solicited and satisfaction guaranteed. Long-distance phone in house.

R. R. NESS, HOWICK, QUE.



ARE YOU IN WANT OF A CHOICE BULL TO HEAD YOUR HERD?

We are offering choice bull calves, sired by Fountain's Boyle, who won first prize at Toronto, London and Ottawa, who also headed first-prize herd at Toronto and Ottawa. Also offering some choice heifers.

D. DUNCAN, DON, ONT.
DUNCAN STATION, C. N. O.

Brampton Jerseys

Unbroken record of several years success at all leading Canadian exhibitions is unequalled by any other herd of any kind or breed of live stock on the American continent. When buying a family cow, a stock bull or a dairy herd, buy only the best. Our public record proves that we have them.

B. H. BULL & SON, Brampton, Ont.

Prizewinning Ayrshires

FOR SALE: 5 High class Bulls, from 6 to 24 months of age; 10 Cows and Heifers, from 6 months to 5 years of age. All bred from the deepest-milking strains.

A. Kennedy & Son, Vernon, Ontario.

Hillview Stock Farm, Winchester station, C. P. R.

QUESTIONS AND ANSWERS. Miscellaneous.

ECZEMA.

I have a pup nine months old that has a thick scurf all over his body, particularly down his back, gets very sore from excessive scratching; hair coming out in spots; feet and legs very sore; has been in this condition for six weeks; seems to be getting worse. What shall I do for him? A. B.

Ans.—Wash him thoroughly with warm soft-soap suds, then dress twice daily with corrosive sublimate, twenty grains to a quart of water.

WOOD FOR TOBOGGAN.

1. What wood is best to make a toboggan (homemade), and what thickness for the slats, and best way to steam same? I have tried three times with white birch 3 x 1/2 inches, and each time it has splintered.

2. I would consider it a great favor if you will answer merely "yes" or "no" to this question. Can you recommend the "Roofing" on house and out-buildings? C. S. N.

Ans.—To make a toboggan, take a single piece of birch or basswood from five to eight feet long, fifteen or sixteen inches wide, and 1/2 to 3/4 inch thick. Place one end in a kettle of boiling water, and, when pliable enough, roll back and fasten with thongs of hide or gut into place. Place cloths of hardwood along the upper side to give strength, and put low hand-rails at the sides, to which the occupants may cling while tobogganing. If a wide-toboggan is desired, use two pieces of wood instead of one.

2. It is useless to ask for an expression of editorial opinion as to proprietary articles. We could not recommend any one except to the prejudice of others.

INORDINATE SWEATING.

I have a working horse five years old that sweats very easily when in harness, and almost the same when in stable not doing anything. He had lymphangitis last spring, and I do not think he ever got over it rightly. He eats and drinks and seems to be all right every other way. Kindly let me know what I can do to relieve this. W. B.

Ans.—A satisfactory diagnosis can hardly be arrived at without an examination and a knowledge of all the circumstances, and it would be well to consult a veterinarian. It may be due to indigestion, in which case a purgative ball consisting of eight drams of aloes and 2 drams of ginger, followed, after purging ceases; Take of powdered potassium nitrate two ounces, powdered gentian one ounce, powdered nux vomica one ounce. Mix and divide into 12 powders, and give one each night and morning in food, or as a drench in a pint of water. Give food of best quality, in moderate quantity, and drive slowly the first few miles, and never overload. It would be wise to have his teeth examined, and, if necessary, rasped level, as he may not be able to masticate properly.

DISSOLVING A SOCIETY.

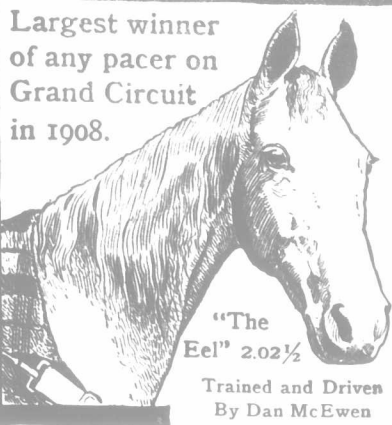
Two years ago last fall a meeting was called to organize a literary society in our school section. It was organized and carried on all winter, then disbanded in the spring and reorganized in the following autumn. That winter this society bought and paid for an organ, lamps and other small articles necessary. This last fall we reorganized again as usual, and, as we had very little use for the organ, and talked of a final dissolution of the society, we thought of selling it. We were told we could not do it at all, that the council would take hold of that part of the business.

1. Could we, if we so desired, sell that organ provided we got a majority vote of the members of the said society?

2. If we can sell the organ, can we donate the money realized to any charitable institution we choose?

3. If we sell the organ, can we, if we so choose, divide the proceeds evenly among the members, or spend it any way we wish to have it spent, without fear of prosecution from any quarter?

Ans.—Yes.
2. If so, unless the members are all agreed to do it.
3. We think so.



FREE

A valuable booklet on diseases of cattle and poultry mailed free to any person applying for same. Also contains reliable cooking receipts, Explains Royal Purple fully.

Dan McEwen Feeds Royal Purple Stock Specific Regularly to "The Eel"

Dan McEwen speaks very highly of Royal Purple Stock Specific. In his letter of Sept. 14th he says in part: "I have used Royal Purple persistently in the feeding of 'the Eel' and 'Henry Winters.' I consider it the best article I have ever used in conditioning race horses. These horses have never been off their food since I commenced using Royal Purple Stock Specific, almost a year ago, and you can rest assured I will always have it in my stables."



Royal Purple is being fed to "Henry Winters" (Trial mile 2.09-3/4) brother of "Allen Winters," winner of \$36,000 in trotting stakes in 1908.

AGENTS WANTED In every district on salary or commission.

Our Guarantee:—Money refunded if not satisfied after material is used.

Royal Purple Stock and Poultry Specifics. W. A. JENKINS, MFG. CO., LONDON, CANADA. The Wise Ones are Using Royal Purple Now. The Others Will Come in Later.

Riverside Holsteins

For sale: Seven young bulls from two to nine months old, out of Record of Merit cows, sired by Sir Pietertje Posch De Boer, whose dam and sire's dam average in official test 25.87 lbs. butter in 7 days, and 87.6 lbs. milk in 1 day.

J. W. Richardson, Caledonia, Ont.

Centre and Hillview Holsteins

125 head to select from. 35 in the R. O. M. Stock bulls Bonheur Statesman, high official backing, and is closely related to Colantha 4th's Johanna; Brookbank Butter Boy. All nearest dams over 20 lbs. From these sires, out of R. O. M. dams, are several young bulls and a few heifers. Prices right. P. D. EDE, Oxford Centre, Ont. Woodstock Station.

LAKEVIEW HOLSTEINS

Herd headed by Count Hengerveld Payne De Kol. His dam, Grace Payne 2nd, 26.30 lbs. butter in 7 days, is dam of world's champion 4-year-old butter cow. Sire Count Hengerveld De Kol, 70 A. R. O. daughters, including world's champion milk cow. For sale: 1 service bull; 10 bull calves, by 20-lb. butter cows. 75 head to select from.

W. D. BRECKON, Mgr., Bronte, Ont.

OIL CAKE

J. & J. Livingston Brand

The finest feed known for stock. Once a user, always a user. Sold either fine or coarse ground. Write:

DOMINION LINSEED OIL CO., LIMITED, BADEN, ONTARIO, 31 Mill St., MONTREAL, QUE.

FAIRVIEW HERD HOLSTEINS

The greatest A. R. O. herd of in northern New York. Headed by Pontiac Korndyke, the greatest sire of the breed, having five daughters whose seven-day records average 29 1/4 pounds each, and over 4 3/8 fat. Assisted by Rag Apple Korndyke, a son of Pontiac Korndyke, out of Pontiac Rag Apple, 31.62 pounds butter in 7 days, and 126.56 pounds in 30 days, at 4 years old. Cows and heifers in calf to the above two bulls for sale, also young bulls sired by them out of large-record cows. Write, or come and inspect our herd. E. H. DOLLAR, Heuvelton, St. Law. Co., N. Y., near Prescott, Ont.

MAPLE HILL HOLSTEIN - FRIESIANS!

Two cows due to calve inside of six weeks. Two cows giving milk, bred to Prince Posch Pietertje C. G. W. CLEMONS, ST. GEORGE, ONT. EVERGREEN STOCK FARM offers for sale choice young HOLSTEIN BULLS, from 10 to 12 months old, sired by sons of Mercena 3rd and Tidy Abbecker, each of which made over 27 lbs. of butter per week, and 80 lbs. milk per day. Also choice young females. Write for prices. F. E. PETIT, Burgessville, Ont.

HOLSTEINS

We must sell at least 25 cows and heifers at once in order to make room for the increase of our large herd. This is a chance of a lifetime to buy good cattle at bargain prices. The best way to arrange to come and look the herd over. If you cannot, we will do our best for you by correspondence. Imported Pontiac Hermes, son of Hengerveld De Kol, world's greatest sire, head of herd. All leading breeds represented. Putnam station, near Ingersoll.

LYNDALE HOLSTEINS

Offers for sale 5 young bulls from Record of Merit cows, and sired by Count De Kol Pietertje. Also 2 bulls sired by Sara Hengerveld Korndyke, and a number of heifers bred to this bull. BROWN BROS., LYN. ONTARIO.

The Maples Holstein Herd! RECORD-OF-MERIT COWS.

Headed by Lord Wayne Mechthilde Calamity, also in the Record of Merit. Several choice bull and heifer calves; also one bull fit for service. WALBURN RIVERS, Folden's Corners Ont.

FOR SALE, HOLSTEINS and AYRSHIRES,

Of the best performing strains. GEO. RICE, ANNANDALE STOCK FARM, TILLSONBURG, ONTARIO.

Only Bull Calves

FOR SALE, HOLSTEINS and AYRSHIRES, Of the best performing strains. GEO. RICE, ANNANDALE STOCK FARM, TILLSONBURG, ONTARIO.

BUSINESS HOLSTEINS!

Over 60 head to select from. Milk yield from 60 to 85 lbs. a day, and from 35 to 47 lbs. a day for 2-yr-olds. There are 10 2-yr.-old heifers, 8 1-yr.-olds, and a number of neifer calves. Bulls from 1-yr.-old down. Priced right. Truthfully described. W. Higginson, Inkerman, Ont.

IMPERIAL HOLSTEINS!

For sale: 13 bulls of serviceable age, sired by Tidy Abbecker Mercedes Posch, whose 7 nearest dams have records within a fraction of 27 lbs. Out of show cows, with high official records. A high-class lot of young bulls. W. H. S'MMONS, New Durham, Ont., Oxford County.

WOODBINE STOCK FARM

Offers a few fine young Holstein bulls and bull calves, sired by Sir Mechthilde Posch. Sire's dam holds world's largest two-day public test record, dam Ianthe Jewel Mechthilde, 27.65 lbs. butter in 7 days; average test, 4.46 per cent. fat; out of dams with superior breeding and quality. Paris, G. T. R.; Ayr, C. P. R. Shipping stations—A. KENNEDY, Ayr, Ont.

Now

is the time to buy a bull for service next year, because we sell CHEAPER now than we do next spring. Why not write to us RIGHT AWAY for a BARGAIN in bulls from R. O. M. dams? Or better yet, call and see us.

E. & F. MALLORY, FRANKFORD, ONTARIO.

DON'T

Buy a HOLSTEIN BULL till you get my prices on choice goods from 14 months to 1 month old, from best producing strains. "Fairview Stock Farm." FRED ABBOTT, Harrietsville, Ont.

HOLSTEINS

Choice bull calves from high-producing and Record of Merit dams. White Rocks and Huff Orpingtons. Winners of silver cup and sixteen regular and special prizes at Galt and Hespeler shows. David Rife & Sons, Hespeler, Ont.

Maple Glen HOLSTEINS

For sale: Two bull calves born April 28th. One sired by Brightest Canar; dam of calf has 22 1/2 lbs. butter record, over 4 per cent. fat. The other from 19.48-lb. 2-year-old A. R. O. test, sired by a bull with a 22 1/2-lb. tested dam, with 93 lbs. milk 1 day. Also a 4-year-old cow due in Oct., sire's g. dam sister of Carmen Sylvia. G. A. Gilroy, Glen Ruell, Ont.

Ridgedale Farm Holsteins

For sale: 4 bull calves from one to ten months old; 2 heifer calves. All bred from choice dams. Also a pair of choice cows supposed to be in calf. R. W. WALKER, Utica P. O., Ont. Port Perry (G. T. R.) and Myrtle (C. P. R.) stations, Ontario Co.

HOLSTEINS FOR SALE.

Both male and female, including my present stock bull, Cornucopia Alban De Kol, imported. J. A. CASKEY, MADOC, ONT.

NEW LIFE AND ENERGY

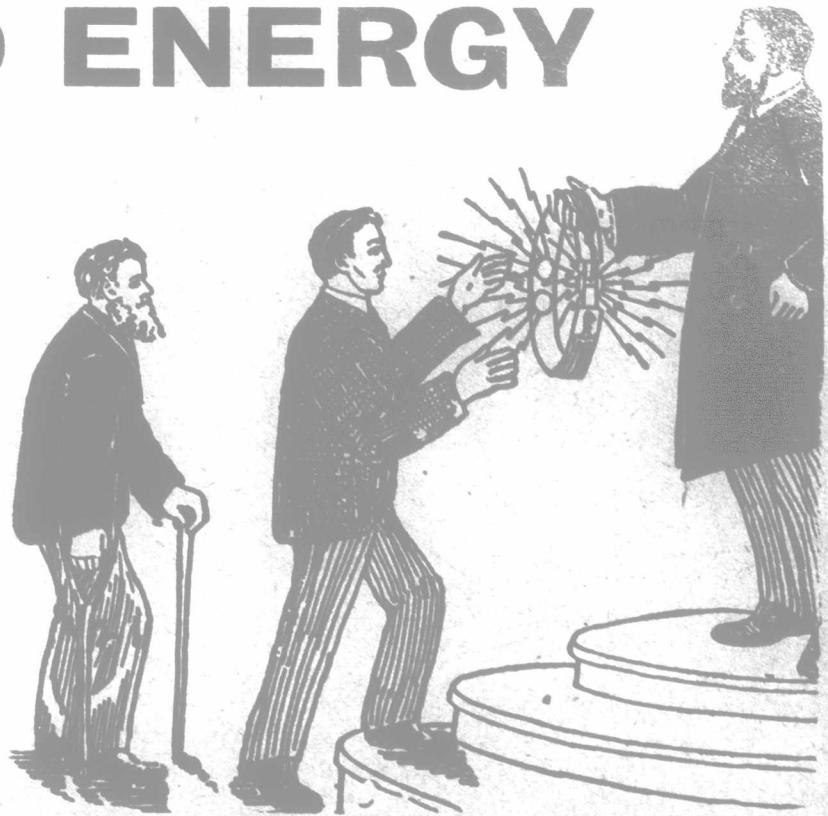
MEN, LOOK HERE!

Even Until Old Age You May Feel the Vigor of Youth, with its Light Heart, Elastic Step, Courage and Tireless Energy, You May Be Free from Pains and Defy Your Years.

Varicocele, Spermatorrhoea, Losses and Drains, and All Ailments which Destroy Manhood's Vigor, are Cured by Dr. McLaughlin's Electric Belt.

Free With Electric Suspensory for Weak Men.

Sends the current to the prostate gland, the seat of all weakness. It develops and expands weak organs and checks losses. No case of weakness can resist it. **FREE WITH BELTS FOR WEAK MEN.**



Let any man who is weak, broken down, old and decrepit in physical weakness, full of pains and aches, gloomy, despondent and cheerless — any man who wants to be stronger and younger than he feels—let him come and tell me how he feels, and if I say that I can cure him he can depend upon it. This is to men who are afflicted with nervous debility, who get up tired in the morning, have Backache, Rheumatism, Stomach, Liver, Bladder and Kidney Trouble, who are constipated, or suffering from nerve or muscle weakness or some forms of Paralysis and Locomotor Ataxia. I don't want money that I don't earn. I don't need it, and am not after it. But I am after the dollars that are now going wrong in the quest of health. Look at all the poor wrecks of humanity that are spending all they earn on drugs—dope that is paralyzing their vital organs—that have spent all they have earned for years without gaining a pound of strength for the hundreds of dollars wasted.

That is the money that I am after, because for every dollar I take I can give a thousand per cent. interest to the man who invests it. I have cured so many cases right here that I can prove my claims to you, but if that proof is not enough I'll give you the names of men right near you—where you are. Is that fair? Most of the belts that I am selling now are to men who have been sent here by their friends whom I have cured. I think that is the best evidence that my business is a success from the standpoint of cures, as well as on the dollar side.

Just lately I have received letters of praise from these men who have used my

DR. McLAUGHLIN'S ELECTRIC BELT.

Dear Sir,—One year ago last February I was taken with Nervous Exhaustion (the Doctors pronounced it). I suffered all the tortures of that disease; was all run down, so weak I could hardly do anything at all. Since I began to use your Belt there has been a marked improvement in my condition in the different ways mentioned. I have slept good every night since wearing your Belt, which is one of the greatest blessings of mankind. I have a great deal more ambition; work used to seem such a mountain, now it seems more a pleasure; more strength and vim; memory better; digestion better; constipation about gone, which I was bothered with a great deal; head feels better, and I feel far better in every way.

NELSON ROSE, South Bay, Ont.

Dear Sir,—I take pleasure in saying that my aches and pains have completely left me, and I am well pleased with your Belt, as it is good value for the money. I have worn it for two months, and I got good value for it the first two weeks. I am twice as strong as before, and better in all ways. I would advise all suffering people to get one and be convinced for themselves. I cannot say too much in favor of your Belt.

WM. S. CARTER,
Box No. 14, Mapleton, Ont.

Dear Sir,—The Belt you sent me completely cured my back. I only used it one week, since then I have never had any return of the pains. I can truly recommend your Belt.

RICHARD R. SPOONER, Acton West, Ont.

Dear Sir,—I am very thankful to say that I feel much better, both in strength and health. My back is not like it was, for I can do a day's work now much easier than I could before using your Belt. I now wake up in the morning feeling fresh, not like before, when I had that languid feeling. I have more life in me now. I am well satisfied with the Belt. I only wish I had obtained it before.

A. RICKARDS, Petersburg, Ont.

Dear Sir,—I am pleased to tell you that I am able to follow the team all day. The money I paid you for your Belt was the best investment that I ever made. When I got your Belt, I had to use crutches to get around, and now I am able to do all kinds of farm work. I remain,

GEORGE McKAY,
Box 325, Owen Sound, Ont.

I don't want your money without giving you value for it. I know it will cure in any case that I undertake. If I can't cure, I'll tell you frankly. You have nothing to lose, for if you wish you can use the Belt entirely at my risk, and if it doesn't cure you it will not cost you one cent. The only condition I impose is that you give me security for the Belt while you are using it, as evidence of good faith on your part.

Give me a man (or woman, for that matter) who has been sick and suffering for years, and taken medicine until the system is all run down and debilitated, the stomach unable to digest the food, and the nerves shattered. My Electric Belt will give new life to every organ, drive out disease and restore health.

I have the grandest invention of the age for weak men; the surest and easiest cure for all nervous and chronic diseases. Its wonderful power is directed to the seat of the nervous system, through which its vitalized strength penetrates into all parts of the body, carrying new life to every function which has been weakened by excess or dissipation, restoring energy to the brain and power to the vital organs. No weak men, no delicate or sickly woman will ever regret a fair trial of my Belt.

Send for My Book To-day.

Do you want to feel big, husky and powerful, with your veins full of youthful fire, your eye clear, and your muscles strong and active? If you do, fill out this coupon and send it to me and I will send you a book which will inspire you with the courage to help yourself. It is full of the things that make people feel like being strong and healthy, and tells of others like yourself who were just as weak once, but are now among nature's best specimens of strong and healthy human beings. Cut out the coupon and send it to-day, and get this book, free, sealed, by return mail. Call for free consultation. Office Hours, 9 a. m. to 6 p. m. Wednesday and Saturday till 8.30 p.m.

CUT THIS OUT.

DR. M. S. McLAUGHLIN,
112 Yonge St., Toronto, Can.

Please send me your book for men, sealed, free.

NAME

ADDRESS

SEND TO ME

Boys for Farm Help The managers of Dr. Barnardo's Homes invite applications from farmers, or others, for the boys who are arriving periodically from England to be placed in this country. The young immigrants are mostly between 11 and 13 years of age; all will have passed through a period of training in Dr. Barnardo's English Institutions, and will have been carefully selected with a view to their moral and physical suitability for Canadian life. Full particulars as to the terms and conditions upon which the boys are placed may be obtained upon application to Mr. Alfred B. Owen, Agent Dr. Barnardo's Homes, 50-52 Peter St., Toronto.

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FREE Lightning Insurance Policy With Every Roof Covered With SAFE LOCK SHINGLES

EVERY Canadian farmer who expects to build or re-roof his house or barn should write us to-day for details of our Free Lightning Insurance Policy in connection with Safe Lock Metal Shingles.

We give it to you without any conditions whatsoever, except that you roof with Safe Lock Shingles.

Such an offer is unprecedented, but we can afford to make it because we know absolutely that Safe Lock Shingles will insure safety from lightning.

It is absolutely free. You do not have to pay one cent for this protection, either directly or indirectly.

Insurance records show that nearly one-half the fire losses on barns in Canada result from lightning. This loss, running into the hundreds of thousands of dollars, can be entirely prevented if Safe Lock Shingles are used.

We know this, and we back up our statement with a Free Insurance Policy payable under its terms in cash.

Safe Lock Shingles are sold at the same price as shingles known to be inferior in quality of steel, galvanizing and construction.

We have been manufacturing Safe Lock Shingles for over ten years, and roofs laid when we started in business are still "as good as new," to quote from hundreds of letters we have on file in our office from our pleased and satisfied customers.

In all this time these roofs have not cost one cent for repairs of any sort.

In all these years no building covered with Safe Lock Roofing has ever been destroyed by lightning.

Do you know that Safe Lock Shingles fully meet the rigid requirements of the British Government for Admiralty and other public service. Think what that means. Let us illustrate.

Every farmer knows from experience that ordinary galvanized fencing seldom lasts longer than two or three years without showing signs of rust. On the other hand, galvanized wire for Government use gives years and years of service, owing to the splendid galvanizing insisted upon.

Safe Lock Shingles are galvanized the same as Government wire, and therefore may be depended upon to give long service. We really do not know how long they will last. Safe

Lock Shingles in use for more than ten years show no signs of wear.

To-day we are using better material in their construction than ever, the steel is of higher grade, and the galvanizing is heavier. We have also made several improvements in manufacturing. For instance, every shingle is cut accurately to size before it is galvanized, thus protecting the edges of the shingles instead of leaving them raw and exposed to the decaying action of moisture.

We want you to remember the

thus causing a leaky roof.

Safe Lock Shingles cannot be blown off, nor can they be pulled apart by warping of the sheeting, or any other cause.

Study the small illustrations on this page, and you will be convinced of the truth of this statement.

In Fig. 1 the solid black line shows the top lock, the shaded line the bottom lock. Notice that a

contraction due to heat and cold. They cannot unlock.

Illustrations 3, 4 and 5 show the construction of other metal shingles.

Send for our Free Book "The Truth about Roofing"

SAFE LOCK SHINGLES are the only shingles that—

1. Give you a positive guaranty against Lightning, backed up by a policy signed and guaranteed by the manufacturers.
2. Meet fully the rigid requirements of the British Government for Public work.
3. Lock on four sides, and cannot be pulled apart.
4. Have three (3) thicknesses of metal along upper edge at point of greatest strain.
5. Completely protect nails from weather.
6. Have edges galvanized after being cut to exact size.

name Safe Lock. No other shingle has that name.

No other shingle is a Safe Lock Shingle.

Safe Lock Shingles lock positively on all four sides. Other shingles grip only on two sides. This is not enough for a permanent, durable roof. We know of many instances of buildings covered with these shingles being entirely unroofed in a stiff breeze. Another objection is that these shingles are apt to spread apart owing to the warping of the sheeting to which they are nailed,

double fold forms the top lock instead of a single fold, thus giving twice the strength at the point where the greatest strain comes.

With Safe Lock Shingles the nails are driven full length into the sheeting, and are protected by the peculiar lock construction from any possibility of water backing up and starting rust.

Fig. 2 shows the side locks. Note the deep firm grip which allows ample room for expansion and

FIG. 1

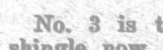


FIG. 2

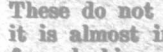


FIG. 3



FIG. 4



FIG. 5

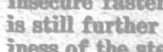


FIG. 6



FIG. 7

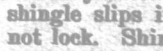


FIG. 8



FIG. 9

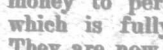


FIG. 10

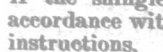


FIG. 11

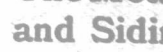


FIG. 12



FIG. 13



FIG. 14



FIG. 15



FIG. 16



FIG. 17



FIG. 18

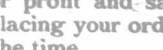


FIG. 19



FIG. 20



FIG. 21



FIG. 22



FIG. 23



FIG. 24



FIG. 25

The Metal Shingle and Siding Co.

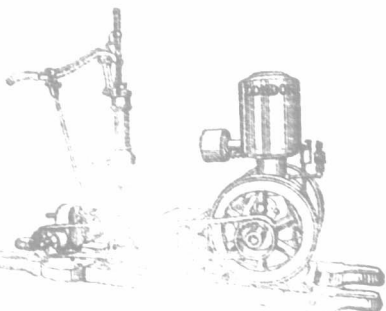
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