

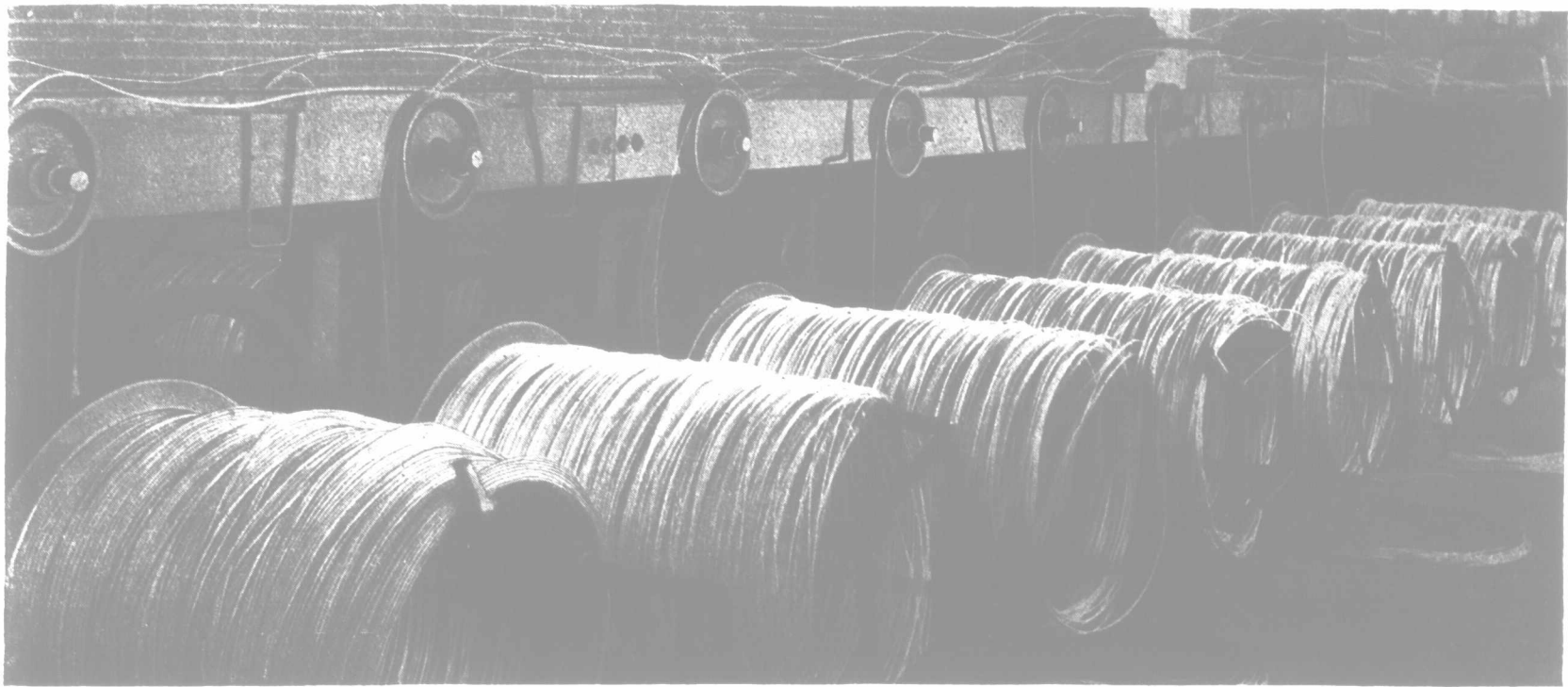
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* AGRICULTURE, STOCK, DAIRY, POULTRY, HORTICULTURE, VETERINARY, HOME CIRCLE.*

Vol. XLVI.

LONDON, ONTARIO, JANUARY 26, 1911.

No. 957



FROST WIRE READY FOR WEAVING INTO

***Frost* Fence**

For a year, now, we have been making and galvanizing—right here in our big modern plant—all the wire that goes into FROST FENCE.

This we did not begin doing until we had learned, by long years of experience, exactly what kind of wire and what amount of galvanizing make the fence fittest to survive Canada's harsh climatic exactions.

When we had found that out, we began making our own wire for our own product. We did not experiment at your or any fence-buyer's expense. We paid the shot ourselves.

Thus, when you now buy FROST FENCE you buy fence woven from wire made expressly for FENCE use. Not ordinary galvanized wire. Not wire made in other countries and fairly useful for any wire purpose—or for any place between the poles.

For FROST FENCE, made by a Canada concern for Canada's fences, is a fence with full strength woven into it. A fence with the springiness that keeps it taut on sidehill as on level ground. A fence that will stand the racket as no other fence will.

Our wire is all full size; true to gauge; drawn from HARD STEEL stock; carefully galvanized; most carefully woven. Thus FROST FENCE is SURE to make good with you.

FROST FENCE has ample provision woven into it—for give and take, for expansion under the summer sun or contraction in the winter's cold. Thus it stays always tight, even, resilient.

Study carefully the FROST FENCE'S tie. You will see that this fence does not depend on mere contact between tie wire and main wires. Several complete wraps are made around each horizontal and each stay-wire. Then the ends are securely fastened. Thus these extra wraps make it needless to kink the horizontal wire and that means greater strength for the fence—because, as you know, a kink in wire is a weakness—a promise of early breakage under slight strain.

**FROST FENCE
STANDS THE RACKET**

Other fences are at their limit of endurance when first stretched. But FROST FENCE has an ample strength in reserve for coming years of wear and tear.

Every bit of wire stock in our 1910 output of Woven Wire fence, Field-Built Fence, Coiled, Barb and other wire was made and galvanized right here, by experts, in an up-to-date a plant as you could find.

But that plant was not nearly big enough to take care of the 1911 business in sight. So we have extended our capacity largely. And now we can assure you of quick delivery; of carefully-made fence; of wire of absolute excellence; of galvanizing worthy of our reputation.

You can now choose among FORTY-NINE DISTINCT STYLES OF FROST WOVEN WIRE FENCE. Each style differs in height, or in spacing of lateral and stay wires. Each is made from FROST WIRE. Each means a lot to you.

Other Frost products include Galvanized Fencing, Coiled Wire, for any width of space; Coiled Wire, for any width of space, with a guarantee tag for quantity; Soft Wire; Hay Wire; Stay-wire; Field-crooked fence; Hooks and Rings; Tube Pipe; and many other tools for lawn fence; and many other tools for lawn fence.

Any fence needs FROST FENCE. It is the only fence that will stand the racket, drop as it may.

FROST WIRE FENCE COMPANY, LIMITED, Hamilton, Canada

SHARPLES Tubular Cream Separators Wear a Lifetime

When you buy a Tubular, you buy for life. Every Tubular is guaranteed forever by the oldest cream separator concern on this continent. We can make that guaranty because we know what Tubulars have done for farmers all over the world, and will do for you.

The World's Best. Different from and later than all others. Double skimming force-skin twice as clean. No disks or other contraptions to wear or wash. Our representative in your town will be glad to show you a Tubular, inside and out.

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40% VOLUME.

The BRAND your local merchant handles.

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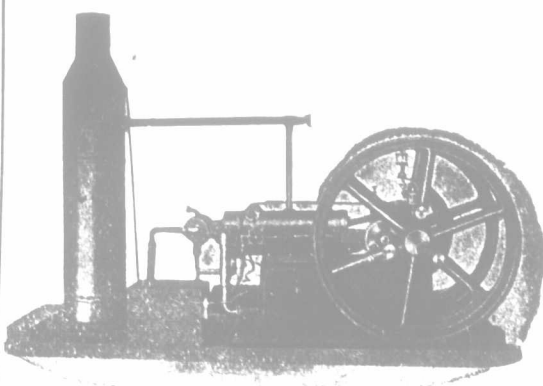
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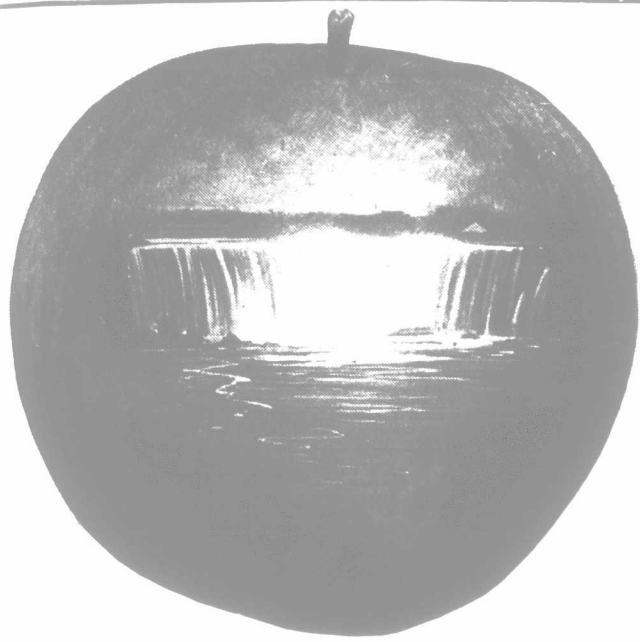


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This spray is not an experiment. It was used by thousands of fruit-growers in Ontario in 1910 with excellent results.

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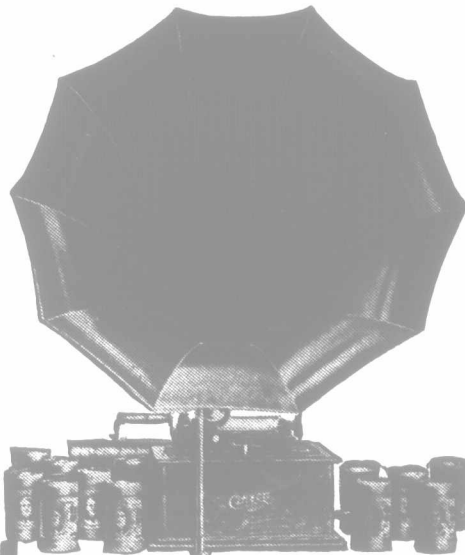
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Yes, free. I don't ask a cent of your money—I don't want you to keep the phonograph—I just want to give it to you on a free loan—then you may return it at my expense.

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I will ship you free this grand outfit, Fireside Model, with one dozen Gold Moulded and Amberol records. You do not have to pay me one cent C. O. D. or sign any lease or mortgage. I want you to get this free outfit—the masterpiece of Mr. Edison's skill—in your home. I want you to see and hear Mr. Edison's final and greatest improvement in phonographs. I want you to witness you of his wonderful superiority. Give a free concert, give a minstrel show, music, dances, the old-fashioned hymns, grand opera, comic opera—all this I want you to hear free of charge—all in your own home—on this free loan offer.

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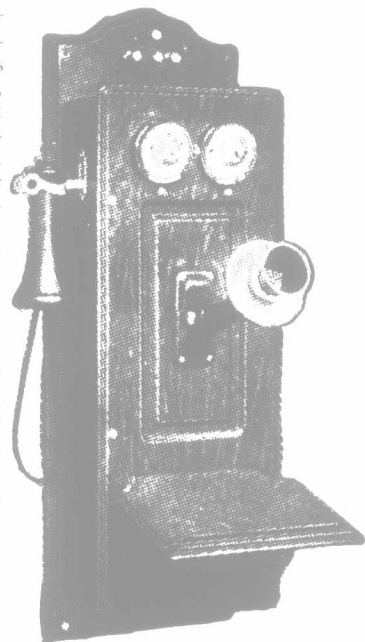
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WE carry in stock wire, insulators, and everything else in construction supplies. Get our prices. Prompt delivery assured.

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One man can make 300 to 600 perfect tile a day with our

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At a cost of \$4 to \$6 per 1,000. CAN YOU AFFORD TO BE WITHOUT IT? The only farm tile machine that does not require hand tamping; the only farmers' machine operated by either hand or power. Machine makes 3, 4, 5 and 6 inch tile. Our Waterproof FLEXIBLE CASING holds tile in perfect shape till set. NO PALLET.

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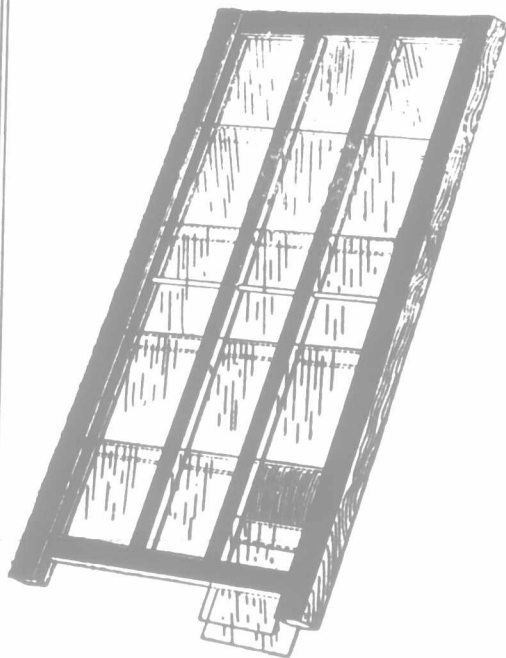
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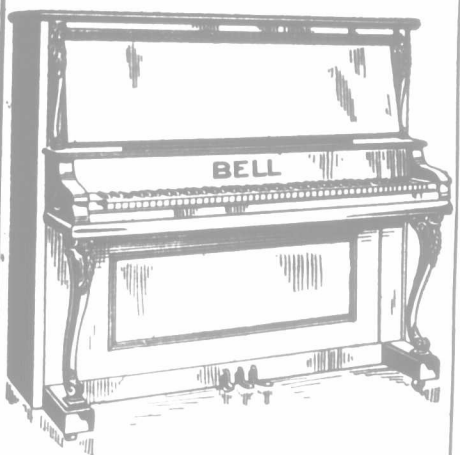


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In the bowl of the
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❑ No confusion occurs between the cream and skim-milk currents.
❑ There is a guarded channel for each, and yet any dilatory fat particles have full opportunity to join the cream current without disturbance in any way. Each has its full right of way from entrance into, until discharged from the machine. That's why the skimming is so perfect.

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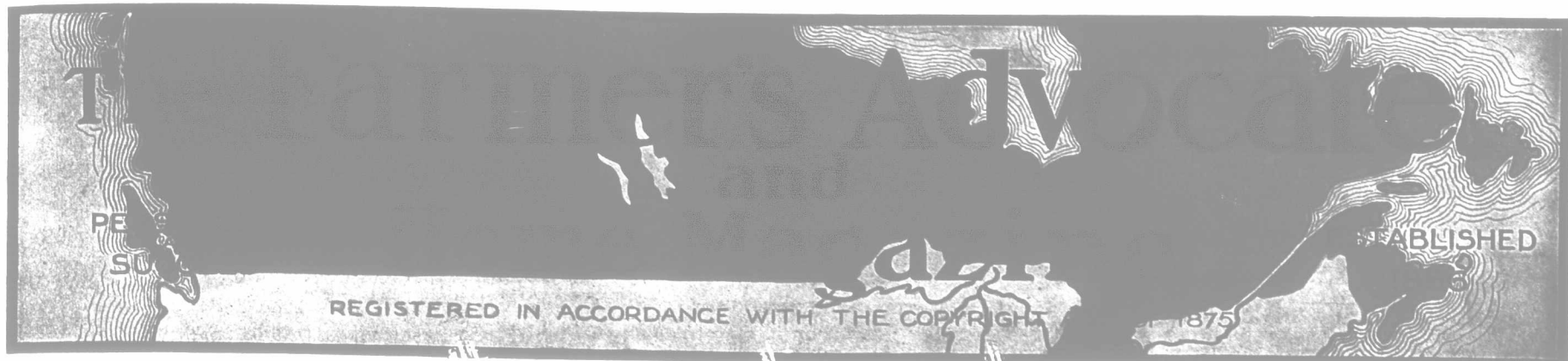
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EDITORIAL.

The Western Ontario Dairymen's Association confines its attention to educational matters. The Provincial Minister of Agriculture was the only man who discussed the tariff at a regular session.

The consumer who kicks about the price of beefsteak seldom thinks of what it cost the farmer who bred, fed, stabled and cared for the cattle. As a matter of fact, the extravagant cost of steaks is largely due to our expensive system of retailing and delivering, plus the consumer's failure to utilize the cheaper cuts of the carcass.

Thirty-five systems of farm accounts have been submitted in response to our announcement of prizes for essays on farm bookkeeping. This number is most gratifying. The task of judging will be difficult, hence the results may not be announced for a week or two. There will be some good matter for publication when the awards are made.

Ten or a dozen speakers at recent agricultural conventions have emphasized the fact that farming has become a business, and a complex business at that. The change is adding not only to the dignity of the occupation, but to the demands it makes upon management and business training. Both the business and scientific aspects will be increasingly emphasized as time goes on.

That the aggregate value of Canadian dairy products for the fiscal year ending March 31st, 1911 bids fair to exceed by eighteen and a half million dollars the aggregate production in 1902-1903, the year of bumper exports, is Dairy Commissioner Ruddick's comforting assurance. Foreign trade returns do not tell the whole story. Home consumption has largely increased.

It is a mistake to assume that American capital would cease to flow into Canada under conditions of reciprocity or free trade. It is quite conceivable that in some lines it might come all the more readily because of the cheaper living and lowered cost of labor and supplies. For those manufacturing industries catering to export demand, free trade is the most favorable condition under which to produce.

The manufacturers have presented their views on the tariff question frankly and publicly. In this they command our respect. Nor, for our part, have we any exception to take to their tendering of advice to the agricultural community. We occasionally indulge in the privilege of making suggestions to them, and turn about is fair play. While unable to share their views on all points, we welcome their evident disposition to fair discussion.

Canadian bank failures are becoming so frequent as to be almost monotonous, or, they would be were they not so serious. Our boasted banking system seems to have some weak spots, after all. Public opinion is veering rapidly to the conclusion that we need some system of Government inspection or independent audit. Police Magistrate Denison, who sentenced Travers, stated that this was the third case within his jurisdiction where failure had arisen from practices which Government inspection would have disclosed.

Five Paths to Prosperity.

In national affairs, New York is often described as a pivotal State. As goes New York, so go the elections, may not always be true; but the vastness of her population, the greatness of her cities and towns, her marvellous means of transport, linking the Atlantic and the Great Lakes, and the varied capabilities of her soils for the higher branches of agriculture, such as fruit culture and dairying, give the farmer of that commonwealth a remarkable vantage, clearly discerned by men standing on the outposts of progress. The position of the State is not unlike that of the Province of Ontario and Western Quebec in the geographical and agricultural make-up of Canada. More than ever, Canadian agriculture is to be based upon intelligence. So is it with New York farming, now in the midst of a great awakening, in which many agencies are operating. For over a quarter of a century, the Experiment Station at Geneva, during recent years under the able direction of Dr. W. H. Jordan, has labored on the problems of research; from Albany, the State capital, ramify agricultural societies, associations, farmers' institutes, and a campaign of improved highways. On the mighty hilltops of Ithaca, the State College of Agriculture, under Dr. L. H. Bailey and a corps of over 80 professors and instructors, with ample farming lands on which to link theory and practice, stands in alliance with Cornell University, in its remarkable democracy of education for the industrial classes in the pursuits and professions of life. "Cornell" yet breathes the spirit of Goldwin Smith and the man whose name it bears; and it is cosmopolitan, over thirty nationalities being represented in its 5,000 student enrollment, of which this season the College of Agriculture claims 1,254. On every hand is evidence that the College is energized with life. Departments are thronged to overcrowding, plans are under way for new buildings and equipment to the extent of several hundred thousand dollars, and an Extension Movement is connecting it with the rural homes and schools of the State, enlarging its opportunities and multiplying its efficiency. This particular work was largely initiated by Prof. John Craig, formerly of Canada, who became horticulturist when Dr. Bailey assumed the directorship. Prof. Chas. H. Tuck, a genial optimist, inspires the movement now.

The regeneration of New York Agriculture appears to be proceeding along five conspicuous lines: (1) Improved and more systematic dairying, (2) fancy and businesslike fruit culture, (3) poultry husbandry, with egg production as a specialty; (4) the restoration of organic matter to the soil, the long-continued reduction of which, J. L. Stone, Professor of Farm Practice, declares to be the fundamental difficulty that has so reduced the productive capacity of the farms; and (5) the systematic construction of a network of macadamized State and county roads to enhance country life and facilitate the marketing of farm products. Underlying and permeating the entire movement is a more serious apprehension of the problems of the farm and appreciation of country life. Farming is being made to pay better, and men, weary of the American West, are returning to resume and enjoy the opportunities of life on the lands of the State. The least evidences of prosperity are probably in those districts where the old mixed-farming vogue, irresponsible to modern methods and enthusiasm, yet obtains.

To supply milk of good quality, in sanitary

condition, daily for some 9,000,000 people, most of them city and town residents, to say nothing of butter, cream and cheese, is an enormous problem. Incidentally, the sale of so much whole milk lessens the supply of by-products, and thus hampers the hog-raising industry. Securing the necessary dairy cows becomes increasingly costly and difficult, although the breeding of this type overshadows all others, and the Holstein-Friesian is far in the lead. Many years ago, the cause of the black-and-whites was espoused with characteristic American enterprise and enthusiasm by such firms as Smith, Powell & Lamb, J. B. Dutcher, T. G. Yeomans, F. C. Stevens, The Unadilla Valley Association, and others, who have continued the work with unabated energy in milk and butter record-making, and in a campaign of publicity probably never before equalled. Prof. I. P. Roberts, formerly head of the College of Agriculture, and director of the Experiment Station, gave a demonstration in herd improvement, by breeding and discarding the undesirables, that raised the production of the College herd from 3,000 pounds of milk per year, to 7,463 pounds, containing 302 pounds butter-fat, or a gross return of \$120, a little more than double that of the original herd. At present, the average milk production per cow in the State is reckoned at about 4,400 pounds per year, and to raise it to at least 7,000 pounds is the aim. To this end, the College dairy department has launched the cow-testing policy which in Canada has proven of such value. The discovery that some cows are not producing enough to pay for their feed, while others return over \$50 in excess of food consumed, is an eye-opener. With the rank and file of dairymen, the next greatest means of progress will be in the production of proper foods and in improved modes of feeding. The College dairy department gives evidence of thoroughgoing work. From the laundering of the student suits, to the boxing of the final product, and the sterilizing chamber for utensils and cans, a policy of rigid cleanliness is insisted upon. There is much more in the gospel of keeping clean than most dairymen have yet learned. From all dairy plants in the State the call is for better-trained men, and the terms of dairy-schools students to qualify themselves are steadily lengthening, is the observation of Prof. H. E. Ross, Assistant Professor of Dairying. The day of the slipshod maker is gone, never to return. He is not wanted. The tremendous demand for whole milk and cream crowds upon the supply for cheese factories and creameries, but certain local conditions favor the latter. Supplies of cheese and butter keeping well within bounds, good prices are likely to be sustained, insuring to skilled workers, and patrons, commensurate returns for products of high grade.

Long and deservedly New York has prided itself upon its achievements in horticulture, alike in floriculture and fruit-growing. Distinguished leaders have piloted the pathway of progress in its science and in its commerce. The fruit areas present all the tokens of prosperity and the refinements of life. More than ever before, apple culture will be prosecuted according to the requirements of science and business. The orchard-survey work has shed a flood of light on the problems of the weak and strong points of the industry. In the three years' survey of Niagara County, it was found that some 716 orchards gave an average annual income per acre, for five years, of \$109.20. Gradually, faulty cultural methods will be abandoned, and greater profits secured as fresh advances are made in the manage-

THE FARMER'S ADVOCATE
AND HOME MAGAZINE.
THE LEADING AGRICULTURAL JOURNAL
IN THE DOMINION.

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JOHN A. TROTTER,

Peterboro Co., Ont.

ment and feeding of orchard soils. When it is borne in mind that growers have allied with them, in their contest against insect and other pests, one of the most distinguished groups of entomologists (headed by Prof. John H. Comstock) and plant pathologists in the world to-day, the conclusion is foregone that there will be no retrogression. In new plantings, the greatest increases are in peach orchards, for which extensive areas are singularly well adapted. The fascination of peach-growing is very great, but if we except the Niagara and Lake Erie peach districts of the Province of Ontario, and perhaps a few other sections, Canadians will probably be well advised in concentrating a large share of their attention upon the apple, where it may be grown in such abundance and perfection, and is subject to fewer hazards than grapes or peaches.

In a previous issue of "The Farmer's Advocate" (Jan. 5th) some account was given of the remarkable attention paid by agricultural leaders in the State to improving the poultry industry, notably in the direction of egg-production, and which the opportunities are equally good in Canada.

As never before, attention is being focused through the agency of the State Agricultural College, upon the problems of crop and soil improvement by means of the use of lime, growth of clover and alfalfa, and the development of better

yielding and rust resisting strains of timothy, 200 having been selected from 40,000 individual plants tested. Already some of the best are producing twice the average yield of all the plants tested. New York has the largest acreage under hay of any State in the Union. There are crops deserving of greater encouragement than timothy, but it is bound to be grown in large quantities for horses and other stock. A distinct service will have been rendered State agriculture if at least one-quarter could be added to the 6,000,000 tons annually grown, or if that tonnage could be grown on a greatly-reduced acreage. The results of experimental and demonstration work with alfalfa on sterile hill lands has been decidedly encouraging, and also the use of lime in correcting soil acidity and setting free plant food. It has been demonstrated that, to secure alfalfa crops on Dunkirk clay loam, a common type of soil over about one-third of the State, the land needs to be well manured the season of sowing, dressed with lime, and inoculated by means of soil from an old alfalfa field.

In one of his lectures this winter, Prof. Stone told the students that more clover cranks were needed in the State, and a system of field culture that will impart a deeper color to the soil, increase its warmth; enable it to hold more water, improve its texture, and promote its bacterial activity. Clover does these things.

As indicated in the paragraph relative to dairying, the dairy cow is the dominant feature of cattle-breeding in the State, beef-cattle feeding receiving comparatively little attention. Here again, by inference, under conditions prevailing in many portions of Ontario Province, the beef-raiser who readjusts his methods may well be in good heart over the outlook. Hothouse lamb production is a feature of New York farming, the young things often bringing as much as \$18 per head early in the season, but ordinary sheep-farming has still a considerable hold upon the regard of State farmers, and would repay greater attention. Prof. H. H. Wing, of the Animal Husbandry Department, mentions the encouraging fact, in connection with the horse industry, that there is a good increase in the number of pure-bred stallions in use. Costly new barns have been erected on the College farm, and the scope of animal-husbandry work will probably be enlarged at no distant date. Nearly every department of the College is overthronged with students, and yet only the fringe has been touched, for only about one student is enrolled for every 500 farms in the State.

For new buildings and equipment, several hundred thousand dollars are to be expended, and it will all be needed, as the fruitage of the extension work returns, in the form of ambitious and inquiring young men and women. It is probable that the principle of demonstration work will find continued application in the public agricultural policies of the State, and there is already in progress a regeneration of the rural educational agencies of the State. Education pays on the farm. Nowhere does it pay better. In certain farm-management investigations secured from 573 men, it was found that the net income derived by farmers who attended a district school only, was \$348 per year; while those who had attended a High School, or its equivalent, received \$622, and college or university men rose to a return of \$847. Even after arranging the farms in groups having equal capital, there was an increase of \$304 in labor income of men who had attended advanced schools. In other words, the conclusion was drawn that "A High school education is worth more to those farmers than an endowment of \$6,000 in 5 per cent. bonds." How much greater will it be when the rural and High School, directed by properly trained teachers, give a type of education better suited to the needs of rural life and its occupations.

The State food improvement programme swings its scope, with large appropriations, more thoroughly supervised and organized plans, and what is equally important, a more liberal expenditure of money in the purchase of improved stock, and the dissemination of improved strains of stock.

From the foregoing notes, the reflective Canadian farm readers will draw useful conclusions in addition to those suggested, and one of these will be that the present is no time for any relaxation, public or private, on the part of those who, in either capacity, are concerned in the progress of Canadian farming.

"Book-farming."

GOOD THEORIES CONDEMNED BY BAD PRACTICE.

A great many excellent methods, recommended on the very best authority, are condemned by faulty practice. Good ideas are applied half-heartedly, or applied wrongly, without attention to the minute instructions that alone guarantee results. It reminds me of an anecdote I read not long ago: A country vicar in England was visiting a family where a child had scarlet fever. "I suppose you keep him well isolated?" he asked. "Lor' bless you, sir, yes. He keeps behind that clothes-horse, and don't come among us but for meals."

Instead of being so ready to discount theory recommended to us on good authority, let us, rather, inquire searchingly into possible defects of practice. For there is no such thing as disparity between correct theory and practice. Sound theory and proper practice must agree. It is merely a matter of adjustment.

A BOOK-FARMER WHO HAS MADE GOOD.

Just one other example, but a most refreshing one. Down in my native County of Haldimand, last fall, I heard of a case which admirably illustrates several of the points which I have been trying to make. In a certain neighborhood was a comparatively young man named Warren Stringer, a school teacher. Twenty years ago, his father, owing to failing health, offered him the farm if he would come home, look after his parents, and pay off certain shares. Now, Mr. Stringer had no agricultural science whatever, but he did have an inherent liking for the farm, and a desire for such knowledge as would make it possible to do better work than his neighbors, and to understand the "why" of things. He attended Institute meetings, subscribed for agricultural journals, and began to practice what he learned as best he knew how. He tried both beef cattle and dairying, but found there was more money for him in the dairy. He kept accounts, practiced soiling to supplement his pastures, and built the first silo in his neighborhood. A few years ago there was a farm for sale in the neighborhood, and to everyone's surprise, Warren Stringer bought it for four or five thousand dollars. A neighbor offered to loan him some money to pay for the farm, but he didn't need any. Then the neighbors began to sit up and take notice. They are now commencing to follow suit.

I got these facts second hand, and have given them from memory. They may not be quite accurate in detail, but I believe they are substantially correct. I wrote Mr. Stringer for corroboration, and from his private letter, which displays a most admirable spirit, I cannot forbear to take the liberty of making a quotation.

"When I took hold of the farm, the only implements capable of giving good service were a sulky horse-rake and a spring-tooth harrow. All other implements and tools were practically done for as regards good service. After getting some new implements, paying off certain claims to other members of the family, and buying 25 acres from my brother, I found that the farm of 105 acres, now with just sufficient tools and implements to work it, had cost me nearly \$3,000. What I wanted was such knowledge as would make it possible to do better work than the general practice, and also to understand the why of it. In groping about blindly, I made some ludicrous mistakes, but kept right on. About this time I heard of the Farmers' Institute, and attended a meeting of the same, becoming a member, and then for the first time I began to get ideas (knowledge). Soon after this, someone sent me a copy of Hoard's Dairyman, and soon after someone canvassed me for 'The Farmer's Advocate.' I subscribed for both papers, and these, with the bulletins received from the Institute, at last began to open up my understanding. At that time, protein, carbohydrates and ether extract, as well as nitrogen (in relation to agriculture), phosphoric acid and potash, were as so much Greek, and I confess the terms were among the hardest I ever learned, but, by taking one at a time, writing it down, and carrying it in my vest pocket, to be looked at a dozen times a day, and by reading all the available information about that particular term, I came at last to get quite familiar with them all. But now comes in the hard part, to apply the knowledge thus gained in actual farm practice, and here is where I got right in earnest, and

*Conclusion of Address by the Managing Editor of "The Farmer's Advocate," before the Western Ontario Dairyman's Convention, January, 1911.

received the name of 'book-farmer.' But perseverance brings success, and in time I was able in some measure to apply the knowledge in such a way as to get better returns than those who followed the old ways. Space forbids to mention what took place in connection with growing corn and building a silo (the very craziest thing of all), seeding every crop of grain to clover, etc. Now, you must bear in mind some woeful mistakes were made, and, after growing good crops, I did not always get a proper return for them until I got to figuring balanced rations for dairy cows, weighing the feed, weighing and testing the milk, sending the cream to the creamery, and feeding the warm skim milk to calves and pigs, and studying the advantages of using special animals for special purposes. All this took quite a number of years, and, while I have been farming for twenty years, it is only about ten years since I have made much headway financially, and during this time have fallen short in several instances in making theory and practice work together. One of the things which I received the greatest criticism for was keeping accounts. Everyone, to a man, claimed it was impossible to figure out a profit in farming, but I have always contended that, unless it could be figured out, it was impossible to get a profit, for the reason that a man does not know where he is making profit or loss. My accounts have simply been keeping receipts and expenses, and from this and other data at hand I could tell the cost of a bushel of the different kinds of grains, the cost of feed given each cow, and her production in milk and fat, the cost of producing 100 pounds pork, etc. I would say that a farmer owning 100 acres of land, and putting into practice the teachings of good agricultural journals and bulletins from the experimental stations, and other information to be obtained by an inquiring mind, would not need to think he was doing anything wonderful to clear \$1,000 a year above living and running expenses."

EDUCATION THROUGH SCIENTIFIC AGRICULTURE.

There is one other point to which I must refer, though I may not dwell upon it as I would like. That is the mental development which comes with a study of agricultural science and economics in their larger aspects. We are getting over the idea that schooling and education are synonymous terms. Intelligent labor is an exceedingly valuable means of education, and incidentally it can be made an invaluable means of child education through the medium of a school-garden and otherwise. The beauty of it is that anyone who studies his occupation has a means of continuing his education indefinitely, leading to larger and larger development, whereas the studies of the school are too often left behind with the classroom, and the mind atrophies for want of vigorous exercise. Scientific agriculture is to be advocated, therefore, on grounds of intellectuality and citizenship. I believe the silo has been an immensely valuable civilizing agent; so of clover, alfalfa and all other good things whose introduction has pruned us out of the ruts and caused us to exercise our minds. If agricultural progress were merely a matter of making more money, I would be half-hearted in support of it; for the end of riches is canker and vanity. I believe scientific and business farming will enable us to make more money, to make it more liberally, to achieve a more broad gauge success in a business way. I hope it will not lead us to save more, for the purpose of earning is judicious spending, reserving, of course, a competence against accident and old age. But my strongest appeal is based on the fact that scientific farming will tend to the intellectual and social development of the farmer and his family. As Solomon says, "Wisdom is better than rubies."

THE SUMMING UP.

And so, in the last analysis, it comes down to this: The trouble with agricultural theorizing is that we have had altogether too much poor theory preached, altogether too little good theory practiced, and especially not enough good theory practiced in the right way. Farming is no longer a mere trade. It is a complicated business and science. We need all the help of scientists, all the help of experimenters, all the help of other people's experience, all the help of reading lectures, and travel, to stimulate, inform and assist. Let us prepare ourselves earnestly to farm well and to live well. Let us read, travel, observe, study, and think, that we may carve out for ourselves a larger, broader success. Above all, let us realize, if we have not realized it long before, that brain power, understanding and knowledge are far more precious than gold.

Eighty per cent. of everything grown on Canadian farms is consumed within our borders, declares the Canadian Manufacturers' tariff memorial, which dilates upon the happy position of the farmer who is thus enabled to convert four-fifths of his produce into cash at his very doors. But what of the farmer whose product was consumed at home? receive more for it than the one whose produce was purchased for export? In most cases, it did not. Wheat, cheese, beef, and all

our staple agricultural products are sold at a level determined by the price of the exportable surplus. Some of the minor products, such as fruit and vegetables, are enhanced in value by the fact of a protected home market, and in special localities, during periods of scarcity, the price of staples, such as butter, may rule above an export basis. But, for the most part, the home market is not a better paying one for producers than the export market. Nor does produce marketed locally add to the support of the great transportation systems, concerning whose welfare some of us have become so nervous.

The Farm-School.

The idea that the pursuit of knowledge is rewarded by its mere acquisition is losing its hold. Its place is giving way to the doctrine of Pragmatism, which teaches that the justification of beliefs is found only in their expression through conduct. Concerning each branch of learning, the questioning grows louder and more insistent. What is the good of it? People are coming to see that thinking is to be valued by action, and that the true purpose of all study is the improvement of human conditions and life.

A writer in the Craftsman discusses the making of school-studies during the "vision years of youth"—fourteen to twenty—significant and effective by and through their relation, not to constructive and manual-training courses in the schools, which he calls "play-work," but to actual, useful work. His plan is the "Farm-School," which takes the boy at fourteen years of age and employs him—body, mind and soul—not in study half the time, and play and holidays half the time, but in work, study and play, daily all the twelve months round.

"Just as I said," argues the writer, "that everyone should live in the country at least part of the year, so I say that every boy should receive part of his education on a farm. I choose the farm in which to carry out the principle of learning to work, because the farm offers opportunities of almost endless variety for practical creative and constructive development. In my opinion, there is no single method of education that teaches a boy so much as farming. The farmer has to depend on his own forethought, skill and muscle. He must study the weather, the seasons, the animals, the plants, and the tools that he uses. Athletics and drill may offset to a certain extent the evil physical effects of indoor study during the youth's growing years. But, on the farm, strength and muscle are acquired by

dweller's point of view. The writer properly appreciates the nature and value of the education during these "vision years" that comes from the experiences and associations of the family hearth. "The family, with all its loving duties, is the greatest institution humanity has yet produced." It is on the farm that the youth sees this idea expanded, "in the hen with her brood, the mother cow with her calf." The boy, bearing his part in supplying the material wants of the home, working in the garden, splitting the kindling-wood, etc., will likely develop truer attitudes towards life and social conditions than the youth away from home, and living in some boarding-house. "I would have these fundamentals taught, not for their practical value, only, but for their ideals."

The Craftsman shows what the town boy would gain by education at the farm school. What, it may be asked, does the farm boy lose by being educated at the town school, or at any school that is a town school in all but name?

What is the practical application of this idea—the school as a part of a farm for city children—to the education of children whose home is on the farm? Is it not, in the first place, that the farm and the school should be correlated—I might say integrated—to the extent that farm life, farm needs, farm ideals, should become the center of educational interest and activity? The science of the farm and household duties should become, and can be made, the subject of study in the school.

In the second place, the boy who leaves his farm home at, say, fourteen to attend a school in town, stands to lose the invaluable education that comes from bearing his share in the duties of home-making; third, he misses the most useful experience of the apprenticeship years—learning to do useful manual work; fourth, he is likely to fall short of the physical stamina he would develop from the daily performance of two or three hours' work on the farm; and, fifth, as town schools are now constituted, he has no opportunity to get that particular and important kind of education for which the Farm-School is established.

J. DEARNESS.

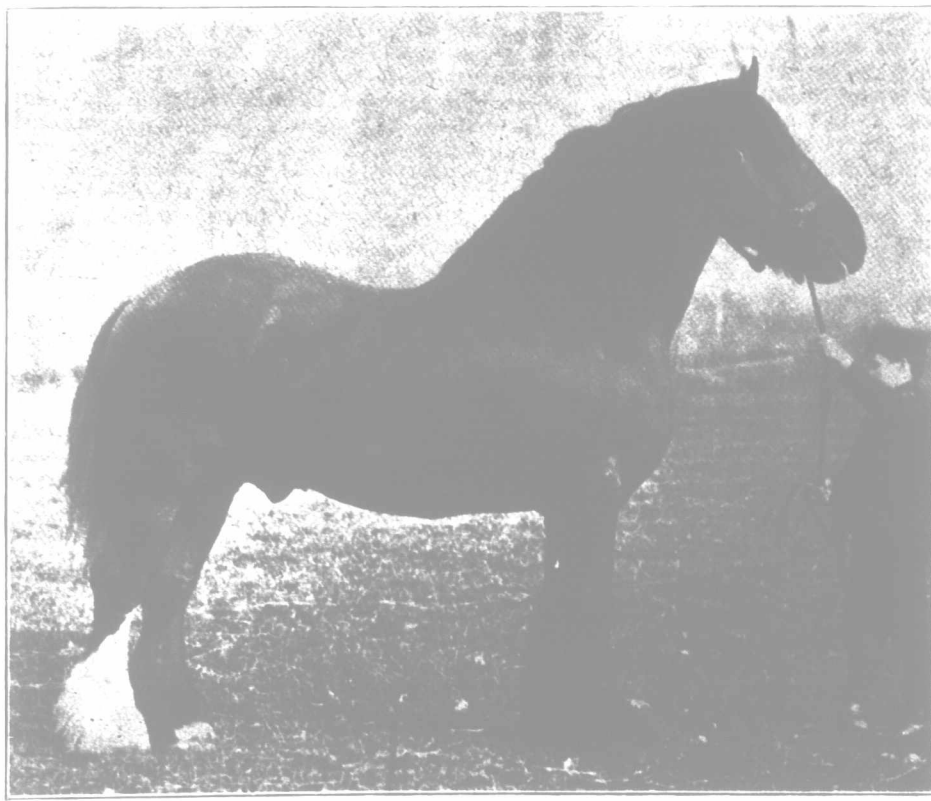
HORSES.

A Notable Clydesdale Sire.

The accompanying portrait of the renowned Clydesdale sire, Darnley, is by far the best representation of this great horse that has appeared

in any of the histories of the breed that has come under our notice, and, together with the following notes, is copied from that excellent publication, "Horses of the British Empire," edited by Sir Humphrey F. De Trafford, Bart.

Darnley (222) was a rich bay, with very little white, sired by Conqueror, and foaled in 1872; he was full of quality, and of good size. Some objected to his head and ear as not being sufficiently large and masculine, and somewhat pony in character, doubtless through his paternal grandam. His arms and thighs were light, and lacked muscle, while his action left something to be desired. This may seem a serious catalogue of deficiencies, but withal he was the gentleman of any company in which he was placed. He had



Darnley (222).

Clydesdale stallion; bay, foaled 1872. Sire Conqueror (199); dam Keir Peggy (187).

a wholly useful expenditure of energy, while at the same time the boy is learning the dignity of labor."

So far as teaching to work is concerned, the idea is not a new one. Luther's plan of education was an alternation of a half-day's work with a half-day's study, and his plan was actually adopted in several German principalities. The quality that distinguishes the modern idea of education by work is that the work itself should be made part of the education. Learning to work simply by imitation and habit is a different thing from studying one's work and developing power and interest through a study of the science—the why and wherefores of each step taken in the work.

The Farm School is a boy's school from a city

beautiful quality of bone, with sufficient quantity, fringed, but not clad, with good hair; with strong, oblique pasterns, big coronets and hard, open, round feet. As a colt, he was late of maturing, and did not impress one as likely to develop into a heavy horse, but he continued to grow and flourish until he ultimately scaled fully a ton. Darnley proved victor in many stiff show-yard contests, among other prizes, capturing the Glasgow District Premium twice, in 1876 and 1877; first at the Highland in 1877 and 1878, in the latter year being made champion of the breed. He was second-prize winner at the great International Show at Kilburn, in 1879, and first at the Highland and Glasgow in 1882, as sire of the best family of five aged animals exhibited; and finally champion at the Centenary

Show of the Highland in 1884, when twelve years old. In Darnley's case there were no sex limitations in the quality of his stock, colts and fillies proving equally good.

Among the most celebrated and successful of Darnley's sons were the following: Knight of Keir (1174), MacGregor (1487), Topgallant (1850), His Royal Highness (2165), Springhill Darnley (2429), Flashwood (3604), Knight of Lothian (4489), Sirdar (4711), Craichmore Darnley (5667), Royalist (6242), Darnley's Last (6663), Eastfield Stamp (6723), Buxom Lad (7533). Some of these were specially distinguished in the show-ring; others owe their popularity to their success at the stud. There are, however, three which stand out conspicuously as being most successful in both spheres, these being MacGregor, Topgallant and Flashwood. Of the three, Flashwood was the best show horse; he was probably the handsomest and best-quality horse ever exhibited at the Glasgow Stallion Show, with the possible exception of Orlando (8092), a grandson of Darnley. Flashwood sired abundance of high-class stock, but his career was comparatively short, as, foaled in 1883, he died in April, 1899, after only seven really productive seasons. On the other hand, his full brother, MacGregor, foaled five years earlier, only died after the close of the 1899 season, after a career even more remarkable for its achievements than for its duration.

Topgallant was a much heavier horse than MacGregor, being decidedly above average height and weight. He was a dark-brown horse. He had a fine, bold outlook, with good head well carried; a massive, handsome body, with powerful quarters, knees and bones; strong, oblique pasterns and capital feet, his worst point being a certain soft fleshiness in the hocks. His most prominent son was Sir Everard (5353), a dark brown, foaled in 1885, the sire of the renowned Baron's Pride (9122). Sir Everard was a big horse in every way, height, girth, bone and weight, but withal full of quality. From his maternal grandsire, London Prince (472), by Prince of Wales (673), he derived his color, and doubtless, in a measure, at least, his handsome head and body; but his legs and feet were very superior to those of London Prince. Sir Everard was bred by Mrs. Lamont, Kinellar, Toward, and was purchased when a colt by William Taylor, Park Mains, Renfrewshire, who retained him during his entire stud life, which terminated in August, 1898, at the age of thirteen years. Sir Everard gained the Glasgow District Premium when a three-year-old; also in the two following years. In 1899 he was shown at the Highland, when out of form, and only secured second prize. He had also the distinction of siring four winners of the Glasgow Premium, thus probably constituting a record. These were Sir Morrell MacKenzie (9416), The Summit (9442), Royal Exchange (10000), and Sir Simon (10465). In addition to these, he was sire of many celebrities, including Baron's Pride (9122), Sir Archie (10134), Gartly Squire (10350), Sir Everest (10917), Gay Edward (10758), Sir Hugo (10924), and Baden Powell (10963).

Easily first among Sir Everard's sons as a sire of winners is Baron's Pride, brown, foaled May, 1890, bred by R. & J. Findlay, Springhill, Baillieston, and owned by A. & W. Montgomery. He was champion at the Highland & Agricultural Society's Show in 1894. Baron's Pride is a horse of great size and substance, with heavy bone and good pasterns and feet; a very handsome horse. He has never been shown since 1894, except for family prizes with his offspring, when he has invariably been invincible. He carries his twenty years blithely, and seems to emulate the long career of his stud predecessor, old MacGregor.

Baron's Pride's most conspicuous son is Everlasting (11331), foaled in 1890. He won first prizes at the Highland Shows of 1901, 1902 and 1903, being champion on the two latter occasions, besides many times elsewhere, while he has already been sire of many prominent winners.

8-months' Credit Offer.

Thousands of our subscribers availed themselves of our Special Renewal Offer, as announced in the last few issues, the date of which expired on January 16th.

We are now making an 8-MONTHS' CREDIT OFFER, which is as follows:—For each new yearly subscription that you send in to us, accompanied by \$1.50, we will credit you with 8 months' renewal of your own subscription free. Or, if preferred, you may send in the new names, accompanied by the full subscription price of \$1.50 each (United States subscriptions, \$2.50 per year), and have your choice of some of our splendid premiums.

Further Estimates on Cost of Horse Power.

[Note.—By way of stimulating a little further thought along this line, we present below two additional calculations, contributed in our recent cost-of-horse-power competition. For the information of new subscribers, we may explain that the prize essays have already appeared. It will be noted that these two estimates vary widely, one placing the cost of keeping a horse at \$97.45 per annum, the other at \$355.65 per team, or \$177.82 per horse per annum. The latter estimate allows for an excessive quantity of hay, while the former estimate on this point is below the mark. Neither has credited the horse with any allowance for manure.—Editor.]

Editor "The Farmer's Advocate":

In estimating the cost of horse-power on a farm, there are so many factors that have to be taken into consideration, in order to arrive at anything like a definite conclusion as to what the cash outlay actually is, that a person is not sure, after he has made his calculations, whether they are altogether correct in fact, as well as in theory. In submitting my views on the subject, I have endeavored to steer clear of all side-issues that would considerably lighten the cost of keep, such as raising a colt, against which would have to be charged the lost time of the mare, and teaming in the winter time, when the horses would be otherwise idle.

The heaviest item in the bill, of course, is the grain ration, which has to be fed to keep the horse up to the mark whilst actually working, and also in lesser amounts during an idle period to keep the animal in good heart. It is perhaps in this one item that considerable saving could be effected by the careful feeder, as more horses are overfed than underfed during the winter period of enforced rest. In figuring out the hay, I have averaged it at 12 pounds a day, and not charged for straw used for feeding and bedding. There are also short periods during the summer when a horse can remain on grass for a few days at a time. The working life of a horse is from ten to fifteen years, and if no provision is made, by selling him during the years that his price remains fairly constant, or by having young horses all the time, a certain charge must be made yearly to cover the cost of investment. In the case of a horse worth \$200, this would mean an annual sum of \$20 for ten years, after which time he would probably have to be replaced.

The labor item is not excessive, and I have placed it at half an hour a day for the year, which, at 10 cents an hour, is \$18.25.

Shoeing is another item in the bill of expense, and may vary considerably, as some horses do not require shoeing so often, or, at any rate, keep their shoes on longer than others, and some will work very well bare behind, whilst others must be shod to keep their feet from breaking.

Depreciation of harness I have placed at 5 per cent, which is sufficient to cover small repairs.

There is always the possibility of having to pay out something for the services of a veterinarian, which cannot be entered as a definite yearly sum.

I have charged nothing for shelter, although, to be exact, three items should enter into the cost, namely, interest on investment, depreciation and repairs. The sum total of these three should be about 10 per cent. The following is the statement of expenses for a work horse on the farm:

Feed	\$45.20
Labor	18.25
Shoeing	1.50
Interest on investment	10.00
Depreciation on horse	20.00
Depreciation on harness	2.00
Extras	.50
Total	\$97.45

Huron Co., Ont. J. B. T.

Editor "The Farmer's Advocate":

The following is a statement of the manner and cost of keeping our working team on the farm for one year:

It may be in place to state first our way of feeding, as different people have different methods. With the beginning of March, we feed our horses a little better, leaving off the straw, which we feed for about three months in winter, and gradually increase the hay and oats. From the first of March until the fall plowing is finished, we like to feed each horse three gallons of oats a day. For about three months in summer, out on grass at nights, and, if weather is hot and they had, in the stable in day time, if not at work. During the winter we feed them one-half a gallon of oats each meal, and all the straw they will eat, some roots almost every night, and a little bran twice a week, or a little in their oats every night, and a little salt each night.

COST OF FEED.

3 gals. of oats per day each, for 275 days, at 40c. per bush	\$ 82.50
1 1/2 gals. oats per day each, for 90 days, at 40c. per bushel	13.50
75 pounds of hay per day per team for 180 days, at \$10 per ton	67.50
2 tons of hay for 185 days (a little day time when out nights, and a little once a day in winter), at \$10 ton	20.00
\$2 each per month for 3 mos. pasture	12.00
Straw for bedding all year, and feed for 3 mos. in year—12 loads, at \$5 per load	60.00
50 bushels roots, at 10c. per bush	5.00
1/2 ton bran, at \$22 per ton	11.00
1 sack of salt, at 75c.	.75

Total for feed \$272.25

COST OF SHOING, LABOR ON TEAM, AND HARNESS, ETC.

8 new shoes, at 30c.	2.40
8 shoes removed every 2 mos. for 6 mos., at 12 1/2c.	3.00
4 shoes removed (no shoes behind during spring work and while out to pasture) every 2 mos., at 12 1/2c.	1.50
Cleaning harness fall and spring, 1 day at each time, at \$1.00 per day	2.00
Oil and polish for harness	.50
Wear and tear of harness, stitching, etc.	1.00
Man's time, 10c. an hour, for 2 hours per day for 365 days, for feeding, cleaning, watering, harnessing and unharnessing, bringing in feed and bedding, cleaning out stable, etc.	73.00

Total \$ 83.40

Total for feed 272.25

Grand total for team \$355.65

If horses are cared for in this manner, they will not depreciate in value very much in a year or two's time.

L. B. SYMONS

Durham Co., Ont.

LIVE STOCK.

A Farmer's Impressions of the Winter Fair.

Editor "The Farmer's Advocate":

The Ontario Winter Fair at Guelph, of 1910, at which I was a visitor, not an exhibitor, has come and gone, and the universal verdict seems to be that it greatly surpassed all its predecessors. Great numbers of the best horses, cattle, sheep and swine, and also the finest poultry in the Province, could hardly fail to make a most imposing exhibition. And when we take into account the magnificent buildings, and the thousands of stalwart farmers who were in attendance, surely we have an exhibition that will live long in the memories of those who were fortunate enough to attend. From an educational standpoint, the Winter Fair easily takes rank as the leading exhibition of the Dominion. Apart from the lecture room, where much valuable information is dispensed, the visitor to the Fair is constantly confronted with the grandest object lessons in the rearing and feeding of live stock, which can hardly fail to be an inspiration to him, and the inevitable result must be that scores of farmers return to their homes filled with enthusiasm, and determined that they will be better farmers because of their visit to the Winter Fair.

The judging-ring is naturally the most interesting point, and in many of the classes the judges had no easy task to pick the winners, and, though they had long to wait, the ringside manifested great interest, and also great patience, while the work of placing the ribbons was going on. Perhaps a slight murmur of disapproval might be heard from some, as the judging was done almost entirely at one end of the ring, and those at the opposite end were unable to see how the awards were being made.

In going through the horse stable, one could hardly fail to notice the large number of Scotchmen employed by the large exhibitors as grooms; and, while in many respects our Canadian boys are away ahead of those from the Old Land, when it comes to trimming and dressing the famous Clydesdales our boys are not in it with the sons of Auld Scotia. A regrettable feature in connection with the horse exhibit was the lack of sufficient accommodation, and several horses had to be sent out to hotel stables, which gave ground for a good deal of dissatisfaction, as those who were sent out were hardly on equal footing with those who had stalls in the fair building, as only the first class of each section was likely to be called on schedule time; it was impossible for outsiders to know just when they were wanted, and it was not unusual for them to arrive in the building with their entry, only to find that they had to wait probably an hour or more before their class would be called. And, besides, intending purchasers were a great deal more likely to try to

do business with those in the Fair building, rather than follow to the city stables those who were compelled to put their horses outside. But there is still a more serious phase of the matter. It was openly charged by some of the smaller exhibitors that, though they were first in the building with their exhibits, they were compelled to get out to make room for the big breeders and importers. If such a charge be true, and the writer has little reason to doubt it, it will remain a standing disgrace to the Fair management, and will surely militate against the success of future exhibitions. Why not tell the farmer plainly that, while his presence is greatly desired at the Fair, he need not trouble about bringing any horses, but just come and behold the wonderful display that can be made by the horse nobility of Ontario.

There is just one other matter that I wish to refer to, and that is the difficulty encountered by exhibitors in having their stock shipped home after the Fair is over. Unfortunately, the weather was very cold during the week of the Fair, and stock taken out of warm quarters and put in cars was sure to suffer. One would expect that no time would be lost in sending them to their destinations, but we find that stock loaded before daylight was left standing at the junction until after midday, not reaching their destinations, about fifty miles from Guelph, until late in the evening, and with very disastrous results to their owners. To the writer's personal knowledge, one very valuable gelding has since died of pneumonia, brought on by a chill received on the car returning from the Fair (so said the V. S.). While this may be a matter over which the Fair management have no control, I think it is their duty to unite with exhibitors in entering a protest against such treatment by the railroads. Trusting that others will give their views on the Winter Fair, whether they agree with me, or not; I feel that it might be productive of good.

FARMER.

FROM THE MANAGEMENT'S VIEWPOINT.

The Secretary of the Exhibition, A. P. Westervelt, makes the following observations regarding the points raised by our correspondent:

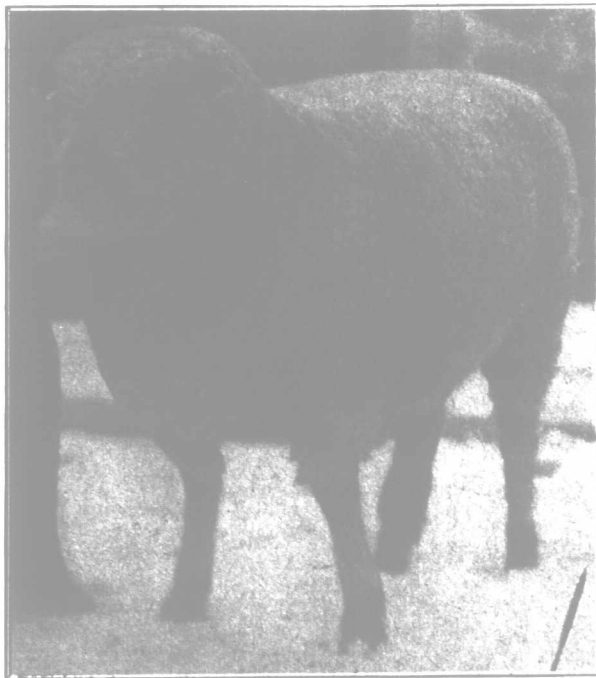
"The management of the Winter Fair are aware of the disadvantage of stabling the horses outside of the Winter Fair Building. Those who have had charge of locating the horses at the last two exhibits are, no doubt, better acquainted with the difficulties of the situation than anyone else. For the last exhibition, as it was not possible to secure the accommodation for stabling horses, it was decided to charge a stall fee for all horses stabled in the building. Accommodation outside was free. This is noted simply to show that it was quite realized by the management the reasonable anxiety of those exhibiting horses to procure accommodation in the building, and to, as far as possible, put the horses inside and out on a more equal footing. It will be readily understood that, from an exhibition standpoint, it was rather a difficult situation to meet. However, the inference made by the letter is not correct. There was absolutely no intention to favor the large exhibitors, to the disadvantage of the smaller exhibitor. Attention has been drawn to the fact that the exhibitors were unable to know at what time each class would come on, and the difficulty of getting the horses from the stable to the building. If a man were exhibiting one horse, this would only happen once, but if a man were exhibiting fifteen or twenty horses, it would create practically an impossible situation. This was the reason for the accommodation of the larger exhibitors being secured in the building. The smaller exhibitor could stable outside with a considerable less disadvantage than an exhibitor showing a large number of horses, and it was felt that this principle would appeal generally to the exhibitors. What I wish to point out particularly is that no favors were shown to the large exhibitors simply because they were large exhibitors, but that there appeared less disadvantage to smaller exhibitors stabling outside than in the case of the large exhibitors.

"During the last show, Lt.-Col. McEwen, who was placed in charge of stabling the horses, moved a resolution at the Executive meeting that the Executive meet immediately after the Exhibition, and meet with the city council of Guelph with the intention of discussing the question of more accommodation, the principal object in view being more accommodation for stabling the horses. This Executive meeting was held on the 23rd of December, and a meeting with the city council was also held on that date. The matter is still being considered, and we hope that some different arrangements may be made before another year. This is simply mentioned to show that the management of the exhibition realize the disadvantage of some of the horses being stabled outside, and the desire of the management to remedy it, if it is at all possible to secure the accommodation.

"With reference to the freight, a representative of the city council took note of all complaints made by all exhibitors, and inquired fully into them, and forwarded the reports to me. I have

also some information with reference to shipments which were sent directly to me. These, it is intended, should be taken up as soon as the Executive for 1911 is appointed. The Grand Trunk intend to make some extensive changes for the accommodation in Guelph, which has been very much limited heretofore, and it is expected that when this has been done, they will be able to handle shipments more expeditiously than heretofore.

"It is unnecessary to state that the management of the exhibition are anxious to secure as large a number of exhibitors as possible, whether they make a large display or a small exhibit, and, so far as it is possible to do it, every person may be assured of the same fair treatment. The management is quite well aware of the dissatisfaction caused by the lack of accommodation in stabling the horses, but an endeavor has been made to try to make the best of the difficult situation, and whether or not it has been successful, it is hoped that it will not be necessary to make the attempt again next year."



Champion Shropshire Wether of America.

Bred and exhibited by J. Lloyd-Jones, Burford, Ont. This wether as a yearling won \$85 at the International Exhibition, Chicago, and \$28 at Guelph, 1910, besides \$10 at local shows same year, a total of \$123, and sold for \$25 to the Harris Abattoir Co., Toronto.

Building a Pig House.

I am going to build a pig-house. Would like you to give me a plan. I am going to build it of stone, with a furnace to boil feed. On account of the slope of ground, I will have to build it long, about 50 x 25 feet. Want pigs to run out at one side. Would you advise stone, well-ventilated, with furnace, as good for pigs?

SUBSCRIBER.

We do not advise the use of stone walls for pigs, as they are usually damp and cold, but can be improved by strapping and boarding over inside, leaving an air space. A better style of wall is a stone or concrete foundation to about a foot above the ground; then 2 x 4-inch studding, double-boarded outside, with paper between, and single boards inside, matched. It is more important to keep swine dry and clean than to make special provision for warmth. Provide ventilation, but avoid drafts. A high ceiling or loft filled with straw, which absorbs moisture, is good, but the latter should be changed at least every year.

The feed cooker, if one is used, pipes and chimney, can be made to aid in equalizing temperature, and promoting a circulation of air. In some modern pens the admission of fresh air is secured by intake shafts about 4 x 6 inches, entering from the outside about a foot above ground and opening inside below the ceiling. Outlet shafts, 8 inches square, through roof, and equipped with a device for preventing a cold down draft, are used. Provide plenty of windows for light. The feed-room is usually placed at one end of building. Buildings are usually laid out with one row pens, and feed passage at side, or two rows, with a five-foot feed passage through center, large enough to accommodate six or eight pigs each, one compartment for feeding, the one in rear for sleeping, with planking as a sleeping place on the cement floors, which are most durable and sanitary. It is handy to have doors between pens, and from pens into feed alley, as well as those into yards. Most men prefer to figure out dimensions to suit their own ideas.

Recommends Moderate Feeding of Silage.

Editor "The Farmer's Advocate":

Like almost everything pertaining to feeding stock, the amount of silage to be fed depends upon several considerations, and also upon the condition of the silage. There is, I think, more difference in the quality of silage than there is in that of hay.

About 35 pounds silage and 30 to 35 pounds mangels, is my idea of what milking cows should have, when the silage is first-class. I had more corn than the silo would hold first time of filling, and I had the fillers come back again four weeks later, after the silage had settled. Although the stalks were as well taken care of as possible, put up in large stooks, drawn together with a rope, and bound with twine, and at filling time apparently in good condition, I did not consider that silage as good by fifty per cent. as that made from the first filling. It was cut at the same time, but the grains of corn came through the cows undigested and showed in the excrement, and, of course, the cow got no benefit from these valuable grains of corn, and it was putting that much more tax on her vital organs, besides the loss of the undigested grain. There was, no doubt, less benefit from the stalks, also, although the digestibility of the stalks did not show so plainly in the excrement.

When feeding this silage from the last filling, I thought it wise to feed only 20 to 25 pounds daily, and fed, as long as it lasted, 40 to 50 pounds daily of mangels to the cows that were fresh from one to three months. After this late-filled silage was fed, I fed more silage and less roots.

Again, when wanting a cow to do her best for a week's or month's test, say, or even when fresh or milking heavily, and not testing, I like to feed only from 20 to 25 pounds silage, and all the roots the cow can stand. Cows that have been used to roots can handle 50 to 60 pounds each daily; but, after 40 pounds roots daily, the increase should be slow. Silage, even at its best, is not as digestible as roots; they are nearly all digestible. An animal, to do well, must have variety, and feeding 55 to 60 pounds silage a day does not allow for that. For this and other reasons, I do not consider it wise to feed so much. But more A-1 silage (which means silage that is as digestible as it can be made) may be fed than of the lower grades.

I fed a cow for eighteen winters on silage, as well as some in summer, and when over 20 years old she would do better on silage than on grass, because she could not then nip the grass. So that the effect of silage on a cow's stomach may be dismissed as nil. There are not many cows fed half that length of time. GEO. RICE.

Feeder Must Be Keen Observer.

Editor "The Farmer's Advocate":

Quite frequently we have been asked the question, "How much silage is it well to feed a cow per day?" In answer, I would say that much depends upon what the feeder is trying to accomplish, and also the quality of silage he is feeding. If the silage is well matured, rich, and for general feeding, 40 pounds, with hay and roots, will keep cattle thrifty and in no danger of any ill-effects. Cloyed appetite and scouring quite frequently is caused by corn being put into the silo too green, and sometimes by feeding mouldy silage. In the human race we find, even in some families, members who have stronger stomachs than others—some who can eat anything, while others are more delicate, and have to be more particular what they eat. Just so with the cattle, in every herd we find cows that will eat and digest more than others. There is no rule to go by as to what amount to feed; if a feeder expects to accomplish much, he must use good judgment and be a keen observer.

Oxford Co., Ont. M. L. HALEY.

Among the rank and file of Shorthorn breeders there is settled conviction that something of a thoroughgoing nature should be done to encourage and assist the development of milking quality in the breed. Many with whom we have discussed the matter are of the opinion that the adoption of a system of officially-supervised yearly tests of milk and fat production, with publication of the names and records of individuals acquitting themselves reasonably well in a Record of Performance, printed as a sort of appendix to the herdbook, would best meet this need. Others think perhaps additional measures might be employed. Certainly, the question is one that should be grappled with at once in the interest of present and future welfare of the breed. If unanimity of opinion cannot be arrived at in the forthcoming annual meeting, why not appoint a carefully-selected committee to consider and report?

THE FARM.

Pump for Hard and Soft Water.

Editor "The Farmer's Advocate":

Herewith is a diagram of our kitchen. I wish to put in sink, with both hard and soft water at sink. Water can only be drawn by pump. Will one pump answer satisfactorily for both hard and soft water? Also, to connect sink with drain for disposal of all wash water. Can you give me a satisfactory solution of this problem?
Oxford Co., Ont. G. A. H.

Ans.—One pump can be made to serve for both soft water and hard water. The pipe from the cistern and that from the well would have to join the pipe to the pump at the same spot, and a three-way stopcock used at the junction. Figure 1 shows the stopcock so set as to draw from the well; Fig. 2 to draw from the cistern. Fig. 3 is a perspective of the stopcock, showing the

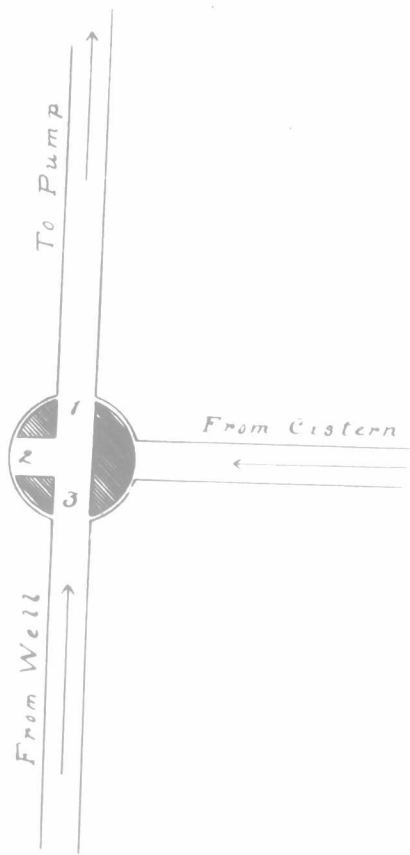


Fig. 1.

Carbolic Acid Ineffectual

Editor "The Farmer's Advocate":

In your issue of Jan. 12th, 1911, page 51, I notice an item written by Wm. Medd, in which he expresses his belief that carbolic acid is a cure for contagious abortion in cattle. Now, I have had considerable experience with this dreaded disease, and have put carbolic acid to a thorough test, but in vain. Mr. Medd states that four years ago he had a Jersey cow abort, and three months after she was bred she had the appearance of a cow that would calve in two days. He claims to have cured her by giving one tablespoonful of carbolic acid in fifteen of water; in other words, 1-15. Now, 1-20 is an antiseptic externally. The mouth of a cow is just as subject to carbolic-acid poisoning as that of a human. I venture that Mr. Medd never tasted that dose he administered to that Jersey cow.

I have seen cows show every symptom of calving at three to four months on the period of gestation, and carry the foetus the full term, everything all right, with no medicinal treatment whatever. How can Mr. Medd account for this? Now, I would like to ask Mr. Medd what are his reasons for saying his cows had contagious abortion? Did he ever have any of the foetal membranes examined microscopically? This is a sure test. I am led to believe that his cows never were affected with contagious abortion. He makes no mention of any cases since four years, till this last summer, and then there were two; then, inside of three days, three more aborted. He starts administering the acid, then one more aborts, and no more, believing that the carbolic acid treatment has stopped the disease in the course of a couple of weeks.

Allow me to draw your attention to the experiments noted in your issue of Nov. 17th, 1910, page 1810. Under the heading, "Curative Measures," we notice the following, viz.: "A heifer was infected with virulent material 43 days after becoming pregnant, and 30 days after infection she received every other day two drachms of carbolic acid in a mash, by the mouth, alternated every fortnight by subcutaneous injections of one drachm in glycerine and water, given every other day. This treatment was continued for ten weeks. She aborted 102 days after infection, and in the tenth week of treatment abortion bacilli were found in the discharges. Yet Mr. Medd has the confidence to contradict this, and claims that the simple treatment of carbolic acid through the mouth alone is a curative measure. It is a well-known fact that medicines given subcutaneously will reach the blood stream in much more strength than when given by the mouth; and, as the germ of contagious abortion is found in the uterus, and there alone, we have to treat by the arterial circulation in some way or other in order to bring about a cure.

I have had the privilege, upon several occasions, of seeing several cows abort in one herd, and no trace of contagious abortion whatever, and I think this is where Mr. Medd has been misled. In all probability, Mr. Medd's cows have received some poison acting on the generative organs, resulting in abortion.

Oxford Co., Ont. H. B. ATKINSON, V. S.

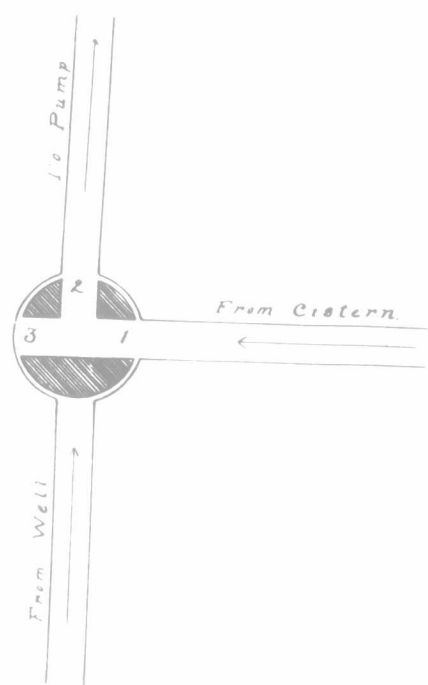


Fig. 2.

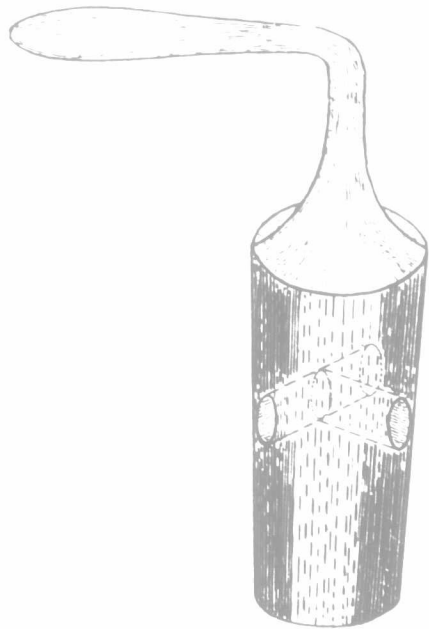


Fig. 3.

Showing drilling of three way stopcock

drilling. The stopcock would have to be placed right beside the pump, so that it would be handy. The only objection would be that people might sometimes make a mistake and turn the tap the wrong way, and get soft water when they wanted hard, or vice versa.

Fig. 1 shows a good method of connecting your sink to the drain. You will note that the pipe leading out of the trap has an elbow, and that the pipe inside the trap is turned down. By this device, no grease or other floating matter can enter your drain, as they float, and no heavy solids can enter your drain as they sink.

Results from Cleaning Mangel Seed.

Editor "The Farmer's Advocate":
Probably some readers of "The Farmer's Advocate" would be interested in some results we secured by sowing large mangel seed during the season. We took the seed as it was put on the market, and cleaned it with a tumbling and sowing machine. At any rate, about 100 bushels of seed were cleaned. Then, some of the seed was sown in the same way as the uncleaned seed, and the results were as follows:

ting paper, and put them in a warm place. While nearly all the large seed germinated, very few of the small ones sprouted, and what did looked very weakly. We sowed them as thick as the sewer would, on land that was well prepared, although not any better than in previous years. They were well hoed and scuffled frequently, till they got too large for further horse cultivation. From 1 1/2 acres there was taken off 1,400 bushels of roots, or 800 bushels per acre. When it is considered that the average yield in Ontario last year was approximately 500 bushels per acre, the above was a creditable showing. The varieties grown were Evans' Mammoth Saw Log and Yellow Leviathan.
Middlesex Co., Ont. C. W. S.

Alfalfa a Mortgage-lifter.

Editor "The Farmer's Advocate":

I have grown alfalfa seed for six years. Have just threshed my 1910 crop of 20 acres, yielding 15 bags (not yet cleaned up), which is the smallest yield I have had per acre, two bushels per acre being the usual yield. We use the second cutting for seed, harvesting when pods are dark-brown. Have tried several methods of harvesting, but prefer cutting with clover table attached to mower. We remove the seat, also large lever, then hang a small jumper (about 2 x 3 feet) to axle of mower, so that most of the weight is on the mower, the hind end dragging on the ground to steady it. The operator stands on this, and, with a long-handled fork, forks the stuff off in small bunches, which, in fairly good weather, does not need touching until picked up with a clover or barley fork. Boy can drive, sitting on axle of mower. A good team will cut from five to six acres per day in this way; same will apply to red clover. Have drawn to barn, and threshed in winter with clover-huller. When machine can be got, I think threshing from the field would be a good way. I have not found that taking a crop of seed in any way affects the stand or the yield of a subsequent crop of hay. I have had none of the more troublesome weeds, so have had no difficulty in disposing of my seed at home, ten dollars being the usual price, eight dollars the lowest.

Under my conditions, single-handed, on a large farm, hiring all extra help, I have found it more profitable to take a crop of seed each year from at least half of my alfalfa, as it divides the work up better, the seed ripening later than red clover. On a heavily stocked farm, with plenty of help, it might be more profitable to take three cuttings of hay. I never get a third cutting when taking a crop of seed, but always have some pasture after field is cleared, without pasturing too close. The threshed alfalfa I consider worth half as much as a cutting of hay, as there is almost invariably a second-growth starts up in the seed, and sometimes gets as high as the seed by the time it is ripe. This, almost any kind of stock eat readily; have usually fed to young cattle. Everyone who grows alfalfa should at least grow his own seed. I have yet to have my first failure in getting a good stand from home-grown seed. Have seeded with barley, oats and wheat. Have forty acres seeded to alfalfa. I am surprised that there are so many farms without alfalfa. It deserves a place well to the front in the list of mortgage-lifters.
Lambton Co., Ont. J. F. SELMAN.

A Western Farmer's Workshop.

Editor "The Farmer's Advocate":

The farm workshop need not be an expensive building, nor expensively equipped, but the man who has one knows its value. The building should be about 10 x 16 feet, 8 feet high in front and 6 feet behind, with a one-slant roof. There should be two one-sash windows, and a door in the front, and three windows in the back. Plenty of light is very essential in a workshop.

The forge and bellows should be placed in one end, with the anvil about 2 1/2 feet from the forge. There should be a carpenter's bench along the rear sill, with drawers underneath for the tools, nails, etc. On the other side should be another bench for general work, with the vise and drill

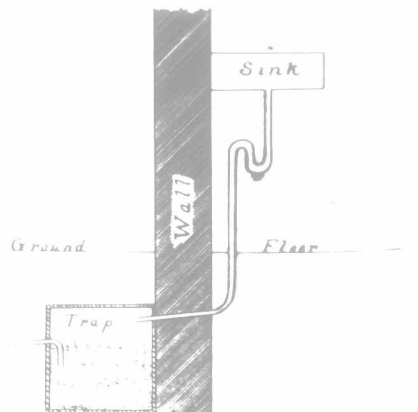


Fig. 4.

attached, and drawers for punches, chisels, bolts, burrs, etc.

Any of these conveniences are easily made, and cost little. Our forge is simply a wooden box about three feet square and eight inches deep, filled with clay, with a hole above the tire iron for a fire-pot. This hole is lined with cement. We have a cooling tank about 2½ feet long, 8 inches wide and 1 foot deep, made of planks, standing near the forge. There a set of stocks and dies, two hammers, one large and one small, a pair of bolt tongs and a pair of flat tongs, a hardy, wrenches, chisels, punches, etc., complete the blacksmith outfit.

The carpenter's tools consist of four saws (hand saw, rip saw, panel saw and keyhole saw), two planes (jack plane and smoothing plane), hammer, square, level, three chisels (¾-inch, 1-inch, and 2-inch), brace with six bits, hand axe, drawing-knife, screwdriver, horse rasp, etc. The rasp is quite necessary in putting handles in hammers and pitchforks, and fitting singletrees, etc.

Such a blacksmith outfit would cost about \$55 new, and the carpenter's tools about \$25. It is very hard to say how much a workshop saves. We sharpen from seventy to one hundred plowshares every year, and the repair work, if we had to hire it done, would probably cost about \$50; but the time saved in going to town to have our plow work and repairing done, and the convenience of being able to do it when it should be done, amounts to a great deal more than the cost of having it done. Oftentimes a man can sharpen a plowshare at noon, while his horses are eating, and there are showery days when he can do a little plow work or a little repairing on his drill or harvester; or, if he is working in the field and breaks something, he might be able to fix it in a few minutes at home, but it would spoil his day to go to town and have it done. An illustration will bring out that point. I sent a man to the field to disk, but it was not long before he came back with a broken brace. I went to the shop and fixed the brace, and in an hour he was in the field again. I could name a great many such instances.

I would by all means advise a newcomer to have a workshop if he lives more than four or five miles from town. If he cannot afford to start with a full outfit of tools, start with a few, but buy good ones, and add more as he feels able.

Manitoba. READER.

Chatty Letter from a New Subscriber.

Have just received "The Farmer's Advocate" for the first time, and, being a farmer who is farming for profit, the article that impressed me most was "A Good New Year's Resolution."

In the first place, permit me to say that I don't see how a farmer could manage his business without a system of bookkeeping, any more than the merchant or the prospector. I may say that I have a record of all business transactions for the past ten years, also the number of bushels of grain threshed, the number of acres sown each year, and an idea of the average; also all milk accounts, the number of cows kept each year, and the average per cow; also when sows are due to farrow. Never lose a litter through neglect. I find it pays well to be particular about seed grain here. Sow only the best, be sure every kernel will grow; then, with a proper seed-bed, you are pretty sure of a good crop. I might say that this year I have been doing a little out of the ordinary; that is, the past season I commenced to cut hay on June 20th. I cleared off a piece of hay, and plowed the ground and sowed it to buckwheat. The season was dry at first, but I had one hundred bushels for my trouble, which I found paid well for the labor, and the ground will be in fine shape for the spring crop. In these days of high-priced and unskilled labor I find it pays well to have all the up-to-date machinery. Have warm, well-lighted, well-ventilated stables. Have a system of management. Know just where and when to start and get there; be "Johnny on the spot," and you will find that farming isn't such a "slow Abel" job, after all. I find that where farm operations are managed as I have described, the farmer can take a day off at nearly any season of the year.

I might also say that I find tile drainage, where needed, is one of the most paying propositions on the farm, having reclaimed five acres of valuable land the past season at a cost, including labor and tile, of \$65. Of course, that don't include the plowing or seed grain. It is a big benefit for the farmer to keep any but the best tools. Make quality the first consideration, then with liberal feeding and good care, things work out pretty well.

D. J. ARMSTRONG.
Co., Ont.

A Barn Worth Study.

Beauty, convenience, utility, simplicity, durability, and sanitation, are all carefully embodied in the well-planned barn of James Mackinnon, Brome Co., Que. Mr. Mackinnon bought a stony hundred acres, without attractive buildings, facing beautiful Brome Lake, and at once set out to

make an attractive home. That cultivation might be economic and agreeable, the rocks are being lifted off the fields, and a magnificent stone fence has already been built with them across the farm.

But the new barn is the most interesting feature of the steading as yet. It is not extra large, but it has been planned with due regard to all the factors that are talked of oftener than practiced. Three thousand four hundred dollars finished it, with two coats of paint, and piped water in from a spring a third of a mile away. It is placed on a hillside, which gives an easy approach, even for the higher barn floor. The foundation is stone, the frame spruce timber, and the roof stained shingles.

The basement floor is of concrete, and is all ceiled. It accommodates 25 cows and 4 horses; has 4 box stalls, a water tank, a cooling-room, and a root cellar. A lean-to, which has a concrete floor, serves as a manure shed. Adjoining it is the wing that provides for hogs and poultry. At one end is a two-story carriage shed, which serves for wagons, etc., beneath, and implements above. The threshing floor is placed six feet above the regular barn flooring, which thus provides for the granary immediately beneath, so that at threshing the grain is spouted directly into the bins, and from there spouts carry it to the stables below, thus avoiding any handling.

The accompanying picture gives a very fair idea of the barn, while the diagrams show the exact plans.

The King system of ventilation was installed at building, and is giving thorough satisfaction.

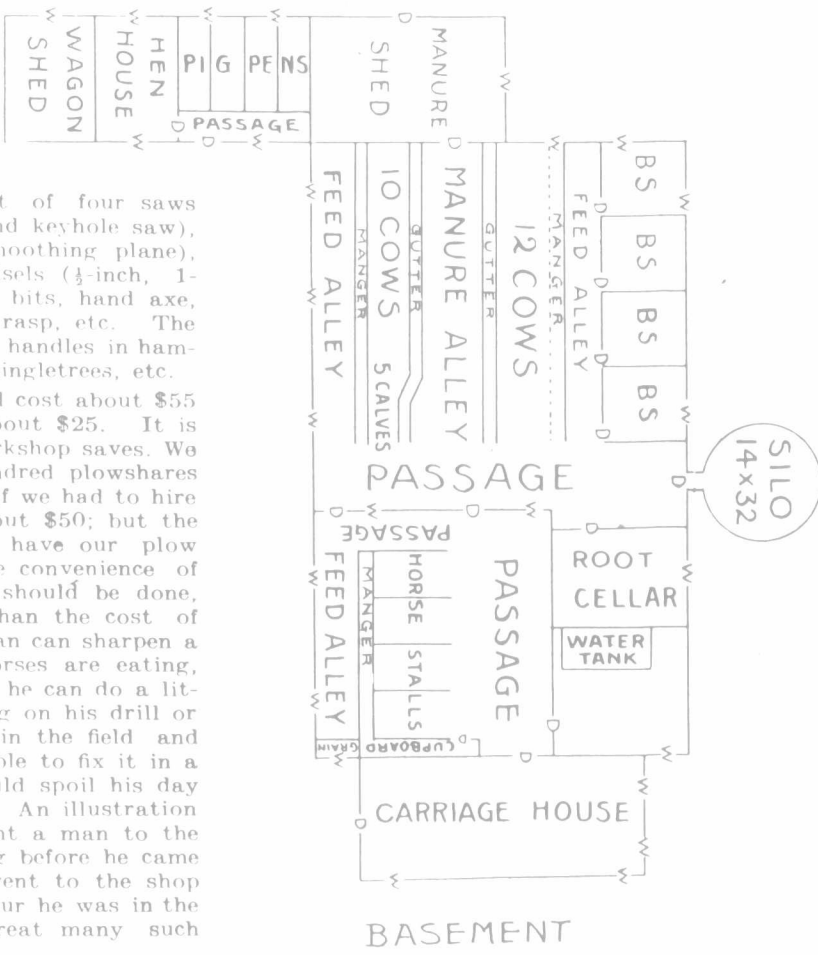
Poisoning Sparrows on the Manure Heap.

Editor "The Farmer's Advocate":

Would it not be an opportune time to insist again upon the readers of your splendid weekly making a united effort to stamp out of existence that cursed pest, the dirty sparrow? The mad dog isn't in it with them. Through "The Farmer's Advocate" I learned how to sweep them up, but there was more to learn, for the sparrow is quite as cute as the proverbial fox, and the game was how to get rascal sparrow to take his medicine. Several plans I tried, but none worked so well as that of carrying one or two tablespoonfuls of poisoned grain in the pocket when cleaning the stables. Pack down the manure, scatter about a tablespoonful on the manure, and by the time you have the stables cleaned out, you can expect to find a few sparrows sick unto death. With this encouragement, there is no doubt you will keep right on with the glorious work, resulting in satisfaction, and the pleasure of having a clean barn and barnyard. The expense is only 15 to 25 cents for the strychnine and wheat.

How to proceed: Buy 20c. worth of strychnine in the powder, put a few tablespoonfuls of hot water on powder; then, with a four-inch spike pulverize until dissolved. Put this in a half pint of water (hot, of course), have two quart cans filled with wheat to within two inches of full, pour the poisoned water on the wheat, let the cans stand in a warm place for 24 hours, then drain the water off and dry the wheat in oven or elsewhere, and it is then ready to be served on the European plan, for the sparrows only pay for what they get. Be careful to keep the poisoned wheat from children and pets, and keep the poultry shut up during the siege.

Middlesex Co., Ont. D. FRASER.



Basement Plan of Mr. Mackinnon's Barn.



Upper-floor Plan of Mr. Mackinnon's Barn.



Barn on Farm of James Mackinnon, Brome Co., Que.

Scales on Barn Floor.

In our January 5th issue a subscriber asked for a description of a device for weighing farm stock in the barn, the scales to be placed upstairs in the barn, and the platform in the basement stable below. In response to our request, replies have been received from our readers having scales so arranged.

S. J. Pym, Huron Co., Ont., writes: "Make the platform below the size required for the beast to stand on, then make a frame to place on the scales above this, place two short scantlings—I have 3 x 9-inch plank, which is better, as it gives a better bearing—place these across the scales, then two long planks across these, and fasten together with bolts or spikes, this frame to be the same size as the platform below. Then, with four long rods (7-16-inch iron is heavy enough), one at each end of the long plank, run down through the floor, and suspend the platform below by each corner, so that it clears the floor nicely; a nut and washers, to be placed on either end of these rods, allows them to be adjusted properly. I have nine placed in a cow stall below. Let the cow loose, and place the scales and platform, in position. When ready, drive the animal upon the platform and slip the chain around its neck, and it is there to stay. Before putting the animal on, put a block under the platform to keep it still; before removing this, have something to brace the platform sideways and endways to prevent swinging; then remove the small block, and, when the animal is standing properly, weigh. If it is not convenient to place it in a stall, it may be placed in a passage, so that the animal is confined. I can weigh an article, light or heavy, as accurately as if placed upon the scales above."

Farmer, Huron Co., Ont., writes: "There are different ways of fixing the scales to weigh stock, but as it is something that is not used every day, an arrangement that will serve the purpose, and yet not cost very much, is the one that I am going to describe. Have the scales set directly over a passage in the stable below, thus dispensing with sides for platform. Put two short scantlings across the scales, one on each end, and bore a hole in each end of scantling, so that when the rods are shoved up through the holes in barn floor and fastened to the scantling, they will hang just clear of the passage walls, and wide enough apart for an animal to pass through to be weighed. The rods, which need not be very heavy, about 1/2 of an inch in diameter, should be long enough to reach to within at least an inch of the passage floor, so that the platform will not be too high for the cattle to step on. Have a thread and nut on each end of the rods, with a long thread on the end, which passes through the barn floor and on to scantling on scales, so that it can be adjusted to suit. Then cut two more pieces of scantling about 1/2 inch shorter than width of passage, and bore the holes so that the rods will hang perpendicular and true from the scales above. Put the plank (about 6 feet) across the scantling and fasten. The whole thing, exclusive of plank and labor, need not cost over \$1.25, as the rods can be purchased at 2 1/2 cents per pound."

J. H. Burns, Perth Co., Ont.: "I will describe one which I recently examined. The scales were of the low beam variety, but this is not really necessary. They were placed on the floor of a mow just off the barn floor, and protected from contents of the mow. Across them were placed two scantling about four feet long, and near each end of the platform. Across these, again, near their ends, were placed two more scantling, the desired length for platform below (5 to 8 feet), and bolted to them. From the latter, near their ends, were hung four wires, each made of two No. 9 wires twisted together. On these were hung the platform below, which was enclosed on three sides, thus forming a stall, into which the animal was led. It was said to work satisfactorily."

Observer, Oxford Co., Ont.: "Place scales away from main floor, if possible, so that holes will not cause trouble in handling grain. Place cross scantling (2 x 4) on each end of platform, have iron with loop over each end of scantling, and near side of platform, so as to be solid and not tip, iron to project a few inches below floor, and have strong hook or eye on lower end of platform in stable, place in stall or passage, unless you have a place for them to remain permanently. Have two cross pieces, 1/2 inch less than width of stall, cover with plank long enough for beast to stand on; bore hole near each of outside planks and through ends of cross pieces. Put bolt through hole, with nut below, and loop on upper end. Have four rods, or chains, long enough to hold lower platform a little less than stable floor, to connect lower hooks with loops on scales. In this way, rods and platform can be detached and laid away. Nail brackets on side of stall to prevent platform swaying and

fall, winter or spring. Plow under not too deeply, about four inches being a very good depth. Spring plowing is preferred at Ottawa. After plowing, the furrows should be rolled flat. The disk should then be used to cut the surface fine, and the land again rolled. At least two diskings, with alternate rollings, should be given before the seed-bed is in perfect condition. This condition is reached only when all interstices between the furrows are filled and the ground is equally firm all over. More working than that suggested may be required to bring the land to this condition, but such work is not lost. The effect of it lasts not only for that season, but extends to after years.

If the field be dirty, plant in hills, otherwise sow in drills. All cleaning work can then be done by horse-power. Drills should be 3 to 3 1/2 feet apart, and even four feet may not be too wide. The ground will all be occupied in time by the roots, and the growth of the crop in the late part of the season is much better than when drills are closer together.

At the Experimental Farm, it is usual to sow one-fourth of the field with Longfellow corn, one-fourth with White-cap Yellow Dent, and one-half with selected Leaming. The latter is considered the best all-round variety for ordinary seasons. The latest variety ever grown there is the Early Mastodon.

It is well to harrow the field four or five days after sowing, if the weather is cool. This will warm the soil by checking evaporation, and kill weeds. After corn is up a few inches, if a crust has formed, or weather is still cool, harrow again. Cultivation should be frequent throughout the season, and should not cease until the corn is in silk. Mr. Grisdale strongly recommended the use of a two-horse cultivator which worked two full rows at a time as being very economical where large areas are grown. The later cultivations must, of course, be done with a one-horse implement.

He warned against being in too great a rush to get corn into silo. The grain should be allowed to get firm. It is better to run the risk of a little frost than to cut too early. Cut into short lengths of half an inch or less. It will pack better, keep better, and be more palatable, than if cut longer. The man in the silo, while filling is going on, should keep outside edges higher than the center, and well tramped. This will lessen moulding and waste at the sides. On the other hand, in emptying silo, the edges should be kept the lowest, to prevent freezing.

The cost of producing a ton of silage at Ottawa Farm, not including rent of land, has been carefully figured out, and amounts to but \$1.25.

THE DAIRY.

"Transitory \$2.00 a Hundred for Milk."

Editor "The Farmer's Advocate":

In a recent issue of "The Farmer's Advocate," Mr. Rice proposes the destruction of our tariff defences and the sending to the scrap-heap of all our cold-storage cars and boats used in connection with our Trans-Atlantic trade, and asserts that dairy products, turned in the direction of the American consumer, would realize two dollars a hundred. While two dollars a hundred for milk looks good, the question is, "What will we have to give in order to obtain it?"

Since the abrogation of the treaty of 1854, and until the present, representations to Washington have been met with scant courtesy. This is more remarkable when we remember that conventions were concluded with the South American Republics, and, while it would be unfair to assume that American statesmen were actuated by any other motive than simply self-interest in tariff legislation, it is, however, hard to get rid of the suspicion that some of them were working on the assumption that hostile tariff legislation would force the Dominion to become part of the American Republic. The Canadian people, in spite of American tariff hostility (it may have been an incentive), have, by courage and patriotic patience, secured such a commanding position that the time has actually come when overtures are being made from Washington.

At the central Farmers' Institute of 1891, I wrote and moved the following amendment to the report on the president's address:

"That, while we believe that it is the true policy of this country to seek an extension of our trade relations in all directions, yet we believe it is to our interests, as farmers, as well as our duty as Canadians, to consider the welfare of all sister interests. Because the interests of this country are so interwoven that we are in almost as large a degree dependent upon other interests for prosperity as they are upon us. Therefore, when preparing an extension of trade relations, we wish to place on record that our feeling is that, in trade matters, no concessions should be made for which adequate compensation is not given."

In 1878 the people of Canada adopted the pol-

Float for Water Tank.

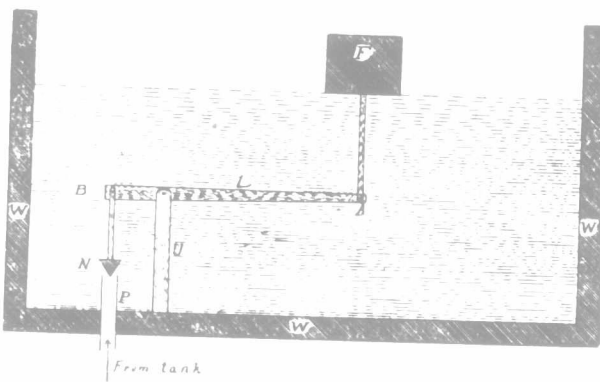
Editor "The Farmer's Advocate":

I built a tank, length 11 feet, width 6 feet, height 3 1/2 feet, under my ganeway. It is a foot and a half higher than where I want to set my water-trough, about sixty feet away, under a shed. What is the best plan to put a float in that trough, 12 feet long by 16 inches wide, so as to regulate the trough to keep full, on an inch pipe?

Bruce Co., Ont.

E. R. D.

Ans.—The accompanying drawing, which is a section of the trough, pipe and float, will show one method of using a float to control the supply



of water in trough. W represents the walls of the trough; L an upright fixed in the bottom of the trough; L a lever; F a float; P the pipe from the tank, and N, a cone-shaped needle valve. The lever (L) works on a bolt through the upright (U). The float is attached to the lever at A, and the needle valve is attached to the lever at B. As the water rises, it will raise the float, and thus seat the needle valve (N) in the pipe (P). The higher the water rises, the tighter the needle valve will be closed. The leverage could be controlled by fastening the float closer, or further from P. The float may be of wood, or it may be an air-tight copper vessel. In case the pipe comes through the side of the tank, instead of through the bottom, an elbow could be put on so that the pipe would turn downward, and the needle valves fastened to the lever between the upright and the float, and pointing upward to meet the down-turned pipe.

WM. H. DAY.

Corn-growing and Ensilage.

At the Eastern Ontario Dairymen's Convention, held recently, Prof. J. H. Grisdale, of Ottawa, in speaking of the feed end of dairying, said that a farmer should, as far as possible, grow his own feed, and as cheaply as possible. He said that if the statement were made that there was one particular crop that would give the best and cheapest food, that could be produced principally by horse labor, that would give June conditions in winter, and that would enable twice the stock to be carried on a farm, that one might expect farmers to say, "Let us know what it is, that we may grow it." Yet we all know what crop is referred to. It is the corn crop.

It is a matter of regret that so few of our farmers take advantage of this great crop. A few of the arguments in favor of this crop being more commonly grown are:

1. Corn can be grown successfully on any kind of soil. Of course, some soils are more suitable than others, but good crops have been grown on hard clay, on light sand, and even on swamp muck.

2. A fair crop may be expected in any season. At the Ottawa farm we have never yet had a real failure.

3. It is acceptable to almost every class of live stock.

4. It is available twelve months in the year. At Ottawa it is found that cows, though running on lucerne pastures, will yet relish a feed of silage.

For Eastern Ontario medium varieties, rather than late ones, should be used. Improved Leaming and White-cap Yellow Dent are either of them.

5. It is well adapted to almost any kind of soil and may be grown after any kind of crop. We suggest that following a corn crop one year that has been harvested, a second plowing, at from which, one has a second crop, and have been to that a two-crop system, and that a third crop, the second year, be planted in the same field.

APIARY.

Bees, Poultry, and Fruit.

Editor "The Farmer's Advocate":

As I appreciate very much the help and information obtained from your valuable paper in times past, I thought I would draw on you again for enlightenment on things unfamiliar, yet very interesting to me, namely, poultry-raising, bee-keeping, and fruit-growing.

1. I would like the opinion of someone well acquainted with the details of all three branches, as to whether they would not make a desirable combination for a man on a small farm, say 50 acres, to give his entire attention to?

2. Is there any difference in the locality, or in high or low land, for beekeeping? I have heard it remarked that, on top of a hill or on high land it was not favorable to the bees getting back with their load of honey. Is there anything in that theory?

3. In starting to keep bees, how many hives would it be wise to get, what kinds of hives and bees, and what would bees and all things necessary be likely to cost?

4. What breeds of poultry are considered the best for eggs and broilers, or would it be advisable to keep more than one breed?

YOUNG FARMER.

Ans.—These questions we have referred to a Wentworth County subscriber, an experienced apiarist, and something of a poultryman and fruit-grower, as well, who is at present depending upon a combination of bees, poultry and fruit for a part of his living. His reply indicates what might be expected by a competent person devoting his whole time to such work. The reply is as follows:

"We think poultry raising, beekeeping and fruit growing a very desirable combination, and one which will pay anyone well with the liking for that kind of work, who would be willing to give his whole time and attention to it, providing a good locality was secured. Such a locality for bees would be one where one or two of the main honey plants abound, namely, white clover, alsike, raspberry, buckwheat, basswood, etc. It would also be an advantage to have a locality where there is considerable waste or unbroken land, as there is usually an abundance of early spring pasture for the bees to build up on and become populous before the main honey flow in June and July, but this is not so important as the source of the main harvest.

"A good locality for poultry would be on the gravelly soil, within easy reach of a good market, and this condition would apply equally as well for a fruit farm. Both bees and poultry should be located so that they are protected by the natural lay of the land from strong winds. On the south or south-east side of a gentle slope would be a good place.

"I do not think there is any perceptible difference in the amount of honey gathered by a colony of bees, whether they have to fly up hill or down with their load.

"Four colonies of pure Italian bees, in ten-frame Langstroth hives, would give you a nice start for the first year, and give you an opportunity to get some practical experience before you get too many on your hands, as they increase too rapidly for profit in inexperienced hands, only to die off during the following winter. These should cost you about \$28, and five extra two-story hives for increase would cost about \$10; artificial comb foundation, extractor, smoker, veil, gloves, books, papers, etc., might cost another \$20, or more, and then you are ready for business. This outfit could be enlarged, if you wished. These four colonies should give you from 60 to 100 pounds of honey each the first year, and increase to eight or ten colonies, depending on the season and locality, giving a possible income of from \$25 to \$40, besides your increase. This I find a fair estimate. The next year you will not have so much expense in proportion to your income, and, if you succeed in wintering them all, you will do exceedingly well, and may allow them to increase as you desire from year to year, always remembering that the more increase you have, the less honey you will have in proportion for that year; thus, a good apiarist, like a good general, endeavors to keep his forces together. Don't expect to double your colonies every year, though an experienced apiarist could easily increase three to fivefold, if he so desired. However, if you come out each spring with 50 per cent. or 60 per cent. increase over the last season, you will be making good progress, until you have reached from 150 to 200 colonies to be kept in one yard; beyond that, there is some danger of overstocking your locality in certain seasons.

"Poultry-keeping can be worked in nicely with bee-keeping, as your young chicks should be hatched in March and April, and will have reached quite a size by the time you are very busy with the bees in June and July.

"As to the best breeds of poultry for eggs

Results of Milk Records

In connection with the results of the dairy-herd competition (see report Western Ontario Dairymen's Convention, January 19th issue), the following letters, received by the secretary of the Association from a couple of the competitors, will be of interest:

Replying to your letter, in which you informed me of being winner of fourth prize in the dairy-herd competition, and inquiring for my method of feeding and building up my herd, I will say, briefly, I have been weighing each cow's milk separately, and keeping daily records, and disposing of the poor cows year by year, and also buying new ones, as good as possible to my knowledge.

This is my method of feeding in the winter: In the morning I feed each 1 pound of meal, consisting of mixed grain and bran, after which they get cornstalks, followed by straw, and are turned out to water at 11.30 a. m., after which they get hay. In the evening, at 6 o'clock, they each get 1 pound of meal, followed by a small feed of hay, and then straw. This diet continues until they freshen, as I try to have them freshen the latter part of March or first of April, and then they get all the hay they will eat, and I increase the meal. In the summer they are tied in the stable for milking, and fed a little meal night and morning all through the summer, and have pasture from 1 acre to 1 1/4 acres per cow, and they are fed green corn when it is ready, about the middle of August. The cost of feeding for a year per cow is about \$40. For the year, we sent to the factory 72,142 pounds milk, making an average per cow of 9,016 pounds for 8 cows, and only sending 6 cows' milk up to May 20th. Middlesex Co., Ont. WM. W. BARTLEY.

I am surprised to hear of being successful in obtaining a prize in the dairy-herd competition, as our cows got no special attention at all this last season, on account of our being interested in working up a rural-telephone system.

We started about eight years ago with a bunch of cows of no particular breeding, mostly bought at auction sale of cows shipped in from other parts in the fall. We used with these the best Holstein sires we could buy, changing every two years.

We weigh and record milk of each cow once a week, and test the milk often enough, perhaps two or three times in a season, and make up the yield of each cow at the end of the year, then disposing of the poorest cows. We attribute our success in obtaining the prize in the herd competition entirely to this weighing, testing and weeding process, for our cows get no extra feed or care all summer. They were turned out to grass in May, and had nothing but grass until the middle of October, when we fed them some corn night and morning, drawn out and thrown down in the pasture. Bruce Co., Ont. C. JOHANN.

Side Lines for the Creameryman.

Profitable side lines for the creameryman are eggs and ice-cream, to say nothing of buttermilk, the sweet-cream trade, casein, hogs, and other lines of profit, declared Prof. H. H. Dean, in his paper prepared for the Western Ontario Dairymen's Convention in Stratford. The feasibility of his suggestions he had not time to establish, but the ideas themselves are thrown out here for what they may be worth.

Profitable "side lines" for the creameryman are eggs and ice-cream, to say nothing of buttermilk, the sweet-cream trade, casein, hogs and other lines of profit. The collecting of eggs fresh from the farm two or three times a week by the cream drawers ought to prove a profitable "side line" for creamerymen. We seem unable to supply our home market for clean, fresh eggs. The eggs are fresh on the farm, but we do not seem to be able to evolve a proper system of marketing. The co-operative egg-circles are a step in the right direction, but in connection with our creameries we have all the machinery needed for collecting and distributing eggs. Who will give it a trial in Ontario?

We have time for but two other observations. During the hot weather of summer, Canadians seem to have developed a mania for eating ice-cream. In many fashionable hotels, ice-cream is on the "bill of fare" all the year. With modern machinery, ice-cream manufacture can very well be made a part of the creamery business, especially where the creamery is located in or near town or city. The local demand for ice-cream will frequently pay all the running expenses of the creamery in hot weather. This is no inconsiderable sum in many creameries, and is worthy the careful attention of those studying economy in creamery management.

The value of buttermilk as a healthful, wholesome drink, is not sufficiently realized. That there is a pronounced temperance wave sweeping over Canada, all will admit. What shall take the place of the accustomed drinks? Nothing is better than good, wholesome buttermilk.

icy, "If we can't get reciprocity in trade, we will have reciprocity in tariffs." This view of the trade situation has been endorsed at every subsequent election. A like policy enforced by the American people, was a mighty factor in creating the great consuming centers that are now crying out for certain of our products. Then, would it not be better for us to continue a policy which is creating great consuming centers of our own? I venture to think that the patriotic, manly, Canadian farmer would not consent to barter his birthright for a transitory two dollars a hundred for milk. J. N. CHAMBERS. Oxford Co., Ont.

British Columbia Dairymen Meet.

At the annual convention of the British Columbia Dairymen's Association, held in Victoria on January 4th, much was said in President W. E. Buckingham's address, as well as in the directors' report, about the good work that had been accomplished by the Association within the past year. At the close of the business session, the delegates were addressed by Hon. Price Ellison, this being his first appearance before the public in his own Province since being made Minister of Finance and Agriculture. He laid great stress upon the value of agriculture in the development of British Columbia, and its permanent value to any community. Being a practical farmer, he knew many of the difficulties and problems of the farmer of to-day, and in his official capacity would do all in his power to assist this now large and fast-growing industry.

WEEDING TUBERCULOSIS OUT OF A HERD.

In the programme of many excellent addresses was one by Dr. S. B. Nelson, State Veterinarian, of Spokane, Washington, on "Tuberculosis in Dairy Cattle." The gist of his remarks was that it was not absolutely necessary to kill infected animals. He showed how herds could be maintained and improved by isolation and care, if the calves were separated from their infected dams at birth, and raised carefully. A period of four or five years was sufficient to eradicate the disease from a herd, because by that time a herd of healthy calves would be raised, and the diseased animals got rid of, the herd proving profitable in the meantime. He instanced many cases where this method had proven effectual.

Speaking on "Sanitary Cow Stables," Dr. A. Knight, Chief Veterinary Inspector for British Columbia, laid great stress upon light and ventilation, and also upon the construction of cement floors, with stalls of the skeleton type.

WINNERS IN THE DAIRY FARMS COMPETITIONS.

W. E. Scott, Deputy Minister of Agriculture, Victoria, then presented the Challenge Cup and medals to the winners in the dairy-farm competition, they being as follows: Cup and gold medal, J. M. Steves, Steveston; silver medal, Alex. McQuarrie, Armstrong; bronze medal, A. C. Wells & Son, Chilliwack. He spoke in general terms about the competition, stated that the time of entry had been extended to February 1st, and hoped that the competition would be larger and stronger than ever, which by all appearances would evidently be so.

Some discussion was taken up by M. A. Jull, Live-stock Commissioner, Victoria, regarding importation of live stock from the East, chief among his remarks being that the Association could get a better rate than the individual, and that they would also pay 50 per cent. of the transportation charges.

OFFICERS.

The officers elected for the year 1911 are: W. E. Buckingham, re-elected President; Frank Bishop, Vice-President; P. H. Moore, Secretary-Treasurer. Directors:—R. W. Halliday, Salmon Arm; A. McQuarrie, Armstrong; J. Turner, Matiqui; A. H. Menzies, Pender Island; J. M. Steves, Steveston; Wm. Duncan, Lennox; A. C. Aitkin, Duncan.

A UNION BANQUET.

The convention was brought to a close by a banquet held on the evening of Jan. 5th. One of the leading features of this banquet was that the Poultry, Stock-breeders' and Dairymen's Associations all joined in their efforts and held the one banquet, making it one long to be remembered by all.

Patrons of cheese factories need not despair at Mr. Rice's prediction that the most promising future outlet for our dairy products will be the milk, butter and cream market of the United States. Cheese will continue to be made and used in Britain and Canada, as well as across the line. Some factories will change from cheese to butter, but the larger the number thus changing over, the better it will be for those who stick to the cheese business. Demand and supply will continue as in the past, to regulate the relative production and profit of these two commodities.

Dr. Dean's example of a curiosity: A curiosity was shown in an address by Prof. Dean without an allusion to mythological metaphor, or classical reference.

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and broilers, we would choose one of the American breeds—Wyandottes, Plymouth Rocks, Rhode Island Reds, or the Orpingtons—depending on your fancy. These are all good utility breeds. On a farm of this kind, I would leave the raising of broilers to the specialist, and only market the surplus cockerels at broiler age. These, besides paying for their own keep, would almost pay for raising the pullets to laying maturity, and from these layers you could clear at least \$1.50 a head per year above the cost of feed, so that 500 layers should give you an income of \$750 for your labor. One hundred colonies of bees should give you another \$750 a year, which would not be a bad income for a working man.

Ten acres I would consider ample to support such a plant as I have outlined, though, if you could secure suitable help, it could be enlarged, if you wished. A part of this small farm could be planted with fruit trees, or, better yet, should be already planted, which would be benefited by the poultry, and would make an ideal shade for them in the hot summer days. Small fruits, such as strawberries, raspberries and currants, ripen at a time when you would be very busy with the bees and young chicks, and for that reason, if grown, you would require considerable help at that season, though, if you have a good berry market, they pay well for the labor.

"The above outline will give Young Farmer an idea of what could be expected from such a farm, though it is impossible to place a limit on what could be accomplished on such a farm, suitably located and skillfully managed."

POULTRY.

The Hen on the Farm.

Editor "The Farmer's Advocate":

It seems to be the fashion for nearly every speaker at all sorts of agricultural meetings to overestimate the prices of eggs and poultry. The ordinary farmer must be satisfied with about half the prices these men talk about. The price the consumer pays, and the price the producer receives are altogether different. Still, for all this, the hen will pay her board and leave a fair profit if she is given a fair chance. Below I will give my last year's experience; some may do better, all can do as well.

Started on November 1st with 10 hens, 45 pullets, and 4 cockerels. Eggs laid during the year, 6,160; money received for eggs, \$106.84; chickens and old hens, \$36.07. Set 240 eggs, raised 209 chickens. Have now on hand 100 pullets, 2 old hens, and 5 cockerels. Eggs from which cockerels were hatched were bought, the setting costing \$1.35.

PROFITS FOR YEAR.

Receipts.	
Eggs	\$106.84
Chickens	36.07
Pullets	50.00
Hens	1.00
Cockerels	3.75
	\$197.66
Expenditure.	
Hens and pullets	\$ 27.50
Feed	69.50
Cockerels	3.00
	\$100.00
Profit—	\$97.66.

These hens got no special care or attention. The chickens were hatched under hens, and, when a week old, were moved out to the orchard. The hens were kept in coops; the chicks had a free run. The feed was grain and grass in summer, and grain, wheat, oats, barley, corn, buckwheat, bran and mangels, clover chaff and meat scraps, for the winter. Hens averaged 112 eggs each; price, nearly 21 cents a dozen; chickens sold from 17½ cents in July, to 10 cents in October. For winter eggs, early pullets, well fed and well developed, are the right kind. T. W. L. Bruce Co., Ont.*

220 Eggs Per Pullet.

Editor "The Farmer's Advocate":

It may be of interest to some of your readers, as laying records are the order of the day, to know what a pen of pure-bred White Wyandotte pullets did for me in the year 1910. These pullets began laying January 1st, 1910, and in the year, ending December 31st, 1910, laid an average of 220 eggs each. At 35 cents per dozen, these would bring \$6.41 per hen.

Two years ago, a pen of our Banded Plymouth Rocks averaged 218 eggs each, which we considered a very high record. Up to this year, our Banded Plymouth Rocks have led as heavy egg producers, but must now take place as close second to the White Wyandottes. L. R. GILLIES, Wellington Co., Ont.

B. C. Poultry Association Annual Meeting.

Organized only last August, the first annual convention of the British Columbia Poultry Association proved a great success. The policy of the Association is to assist the poultrymen who are handling poultry on a commercial basis; it does not cater to the poultry fancier. There are at present 350 members, and from these, some 60 delegates were present at the annual meeting, representing all the poultry districts of the Province. Much of the success of the organization, and its present flourishing condition, is no doubt due to the work which has been accomplished by the energetic secretary, M. A. Jull, Live-stock Commissioner, who has been fortunate in having along with him on the directorate a group of men deeply interested in the welfare of the industry.

The day's programme, besides the business of the Association, consisted of a number of very practical addresses.

The staff of the Provincial Department of Agriculture has been increased by the addition of J. R. Terry, late poultry instructor at the O. A. C., Guelph, to take the place of M. A. Jull, who has been appointed Live-stock Commissioner. Mr. Terry comes to the Province with a long experience in poultry-raising and experimental work, and will, no doubt, prove a valuable adjunct to the poultry industry in British Columbia.

The officers of the Association are: President, E. B. Gale, East Burnaby; Vice-President, W. E. Nochtrieb, Victoria; Sec. Treas., M. A. Jull, Victoria; and ten directors, representing all the districts of the Province.

Quick Fattening.

Editor "The Farmer's Advocate":

In your issue of January 12th, 1911, in the article written by Thos. W. Lee, he says 10 days is sufficient to fatten chickens. If properly done, it can't be done in 10 days. I would like to hear from Mr. Lee as to his personal experience in fattening chickens, because it would be a great boon to the business if chickens can be properly fattened in 10 days. Let us hear from Mr. Lee through your next issue. D. BURCH, Norfolk Co., Ont.

[Note.—We expected some crate fatteners to take exception to the statement about ten days being sufficient, as most poultrymen feed for a longer period, and authorities recommend longer feeding. Let us hear again from Mr. Lee.—Editor.]

GARDEN & ORCHARD.

Mushrooms.

By Peter McArthur.

If a man is feeling ugly, one thing will do as well as another to spend his bad-temper on. This morning I must have got out of bed on the wrong side, or put on the wrong shoe first. Anyway, I have been going around like a bear with a sore head—willing to bite at anyone or anything that gets in my way. And here comes a letter from the Editor of "The Farmer's Advocate," which says:

"We want to lay before our readers in detail your method of raising mushrooms."

Did you ever hear of such foolishness? Who are the readers of "The Farmer's Advocate"? Why, the solid farmers of the country, of course. "Once every week," to quote a letter from Clayton Duff, of Bluevale, "our post office turns yellow with 'Farmer's Advocates.'" The men who take it are the farmers who are interested in pure-bred stock, good horses, and improved methods of farming. They are the bone and sinew of the country, the serious-minded men who are producing the food of the world and making money. Think of telling them how to raise mushrooms! Why, there isn't one in ten of them who makes a pretence of raising ordinary vegetables, except roots and pumpkins for the cows. Of course, they all like mushrooms, just as they like cauliflower and celery and parsnips, but they have no time for such trash. If the women folks feel like going in for such things, well and good, but don't expect the men to do it. When they meet at the post office or blacksmith shop, they talk about fat steers and big crops. People would laugh at them if they talked about garden sass and such luxurious trifles. Of course, mushrooms are all right when the children pick them on the way home from school and don't waste time that could be spent on chores. But, as for raising them, what nonsense!

Still, the editor seems to want an article on the subject. There is no accounting for the ideas that get into the heads of these editors. Why, they sometimes go so far as to print arguments in favor of having running water in the houses, and cement walks around the place, and things like that, so as to make water lighter for the women to carry. Then they say at the time harp on kitchen gardens and things that it would

be beneath the dignity of men to potter at. Can't they ever get it through their heads that farmers, like poets, must "Scorn delights and live laborious days"? Can't they understand that many farmers are secretly proud of the narrowness and hardness of their lives? It seems to make them feel that they are heroes of some sort.

To try to get any enjoyment out of life, other than the joy of making money, is a sign of weakness and lack of serious purpose. And yet these editors keep on telling us that if we took the trouble to make the most of our lives, we could live like kings. Things that are luxurious to city people could be on our tables every day if we took the trouble to have them. We have the land and fertilizers to make good gardens, and if we haven't the time, we should take it. They tell us that a good garden, by varying our diet, will save more in doctor bills than it will cost, besides enabling us to enjoy our meals. Well, perhaps that's so, but I think some of these editors are college fellows. That's why they are so full of womanish notions about gardens and such things. And now they want to explain how to raise mushrooms! O, very well; but after this I'll have to sneak into the village on off hours to get my mail, for they'll laugh at me for months for writing this article.

Mushrooms require less labor to raise than any other dainty you can have on the farm. A few minutes' work each day for three or four days is all that is needed. After the bed is spawned, there is no hoeing or weeding to do, and you can forget all about it until the mushrooms are ready to gather.

In the winter, the bed can be made in a warm cellar, and in the summer in any shed or out-building, or even in the lawn or any patch of sod. I say they are easy to raise, in spite of the fact that I failed dismally the first couple of times I tried. But once I published a wailing paragraph about my bad luck, and then J. McPherson Ross, of Balmy Beach, came to my rescue with instructions so simple that I succeeded at once, and have succeeded ever since. Others who have tried have had equally good luck. This is the way he told me to do it:

Gather the fresh horse manure every morning, and mix it with an equal amount of good garden loam. Keep adding to the pile each day until you have enough to make the size of the bed you want. See that the manure is free from straw, and fork it over whenever you add to it, so that it will not heat. Make the bed in a dry spot, with boards around it that are at least ten inches high. After you put in the mixture of manure and loam, pound it down hard. This is important. Pound it down as you would the earth around a post that you are setting. When finished, the bed should be ten inches deep. Then lay a thermometer on it, face down, so that you can easily keep track of the temperature. As a rule, it will rise rapidly for a few days, and will then begin to fall. When it falls to about 85 degrees, break the brick of spawn into lumps about the size of walnuts. Then poke holes into the bed with a stick, about six inches apart, and drop in the lumps of spawn, covering them carefully. Then leave the bed as it is for eight or ten days, until all the rank heat has escaped. After that, cover it with loam to a depth of three or four inches, and your work is done. In the course of six or eight weeks, you should begin to have mushrooms. If you have the bed in a cellar, it will thrive best in a temperature of about sixty-five degrees.

Mushrooms can be raised at any season of the year, though there is less chance of success with beds made in May and June, on account of flies. For summer beds, an empty stall in the stable is about the best place. It is very important that the bed be placed where it will be dry, as too much moisture delays the growth of the mushrooms. If the bed should get too dry, it should be sprinkled with water that has been warmed to about one hundred degrees, or with liquid manure. But, wherever you make the bed, be sure to pound down the mixture of manure and loam as hard as you can, and have the bed about 10 inches deep.

Probably the very easiest way to raise mushrooms is to make little beds in the lawn or grassy fence corners, or in any patch of sod. Cut out a sod about eighteen inches square, and then dig a hole about eighteen inches deep. Fill this hole with a mixture of two parts of fresh clean horse manure, mixed with loam, and pound it down hard. Leave it for a few days to let the first heat escape, and then put in the spawn and replace the sod upside down. In due time you will have plenty of mushrooms.

Another easy way to raise mushrooms is to fill a barrel with the mixture of loam and manure, and then bore two inch auger holes in the sides. Put in the spawn through these holes, and in a few weeks the mushrooms will begin to appear through these openings.

There are many ways of cooking mushrooms, and they are good in every way. For stews, they are as good as oysters. When fried with steak, they make a dash of for a king. They may be fried in butter, broiled over the coals, or baked

in the oven. They are excellent with scrambled eggs, and, when used as the filling for an omelet, they cannot be beaten. But, after all is said and done, you will never get them to taste better than did the old pink-gilled mushrooms we found in the pasture and used to broil on top of the stove. You remember how it was done, of course. We picked out nice round, cuplike mushrooms, peeled off their skins, put a dab of butter and a little pepper and salt in each one. Then we put them on the hottest lid of the stove to broil. The pink gills gradually lost their color, and drops of juice began to gather on them. Then the juice and melted butter ran together, and sometimes filled the little cup to overflowing. When the whole mushroom began to look wilting and soft, and the gills were turning black, you knew it was cooked. Then you picked it up carefully with your fingers or a spoon and plumped it right into your mouth, closing your lips instantly so as to keep out the air and avoid being burned. Mm-mm-mm! but it was good. And if there happened to be a little dab of stove-polish stuck to the bottom of it, that only added to its flavor. I have tried mushrooms cooked in every way, both at home and in good restaurants, but I never got them to taste the same as did the ones I used to eat as a boy. I suspect that the difference is due to the cheap stove-polish they make nowadays. It doesn't taste as good as the kind we used to have.

There are many kinds of fungi to be found in the fields and woods that are not simply good to eat, but are positively delicious. I am not going to try to give directions for gathering them, as I do not want to be responsible for having someone eat deadly toadstools. Unfortunately, some of the poisonous varieties are so like the non-poisonous that no one but an expert can tell them apart. The pink-gilled field mushrooms are the safest to gather, as their shape, color and free-peeling skin make them easy to distinguish.

Those who are accustomed to them are in little danger of making mistakes when gathering morels or inky mushrooms. The latter were very plentiful last year, and, as they always grow in clumps of from twenty-five to fifty, growing as closely together as they can stick, it is easy to get enough of them to make a meal. The ordinary puff-balls are also excellent, if picked fresh, peeled, sliced, and fried in butter. But it is just as well not to meddle with any of these dainties unless you have learned to know them, by gathering them with someone who is very familiar with the different kinds. The deadly varieties are so very deadly that it is not well to take chances with them.

You can get mushroom spawn for from ten to twenty cents a brick from any reputable seedsmen. I got mine from London (Ont.) seedsmen, and in every case it was good. Mushrooms, like everything else, have been given scientific study, and it is now possible to get different varieties from which to select. None is better than the ordinary field variety, and, if you are going to raise mushrooms, it is the best to begin with.

Raising mushrooms for the market can be made a profitable business. There is always a good demand for them with the best hotels and restaurants, and the grocers in the larger cities handle them. I have never known them to sell for less than twenty-five cents a pound, and I have known them to fetch a dollar and a quarter in the winter months.

When gathering your mushrooms, take them up with a twisting motion, so as to take the whole of the stem out of the ground. If the stems are left, they decay, and spoil the bed. When picking them for the market, always cut off the bottom of the stem, so as to keep them from getting wormy. I guess that is about all.

Ekrid, Jan. 14th.

[Note.—The common meadow mushroom is free-peeling, but this character must always be considered along with the other ones mentioned, for the amanita, the deadly death-cup and fly-poison agaric are also free-peeling. These also possess a collar, and in old specimens may take on a color in the gills that might by an inexperienced collector be mistaken for that of the true mushroom.—Editor.]

B. C. Fruit-growers Aggressive.

The British Columbia Fruit-growers' Association, which was organized in April, 1910, held its annual meeting in Victoria on January 6th and 7th. Seventy delegates were present, representing all fruit districts in the Province. Keen interest was manifested in the discussions.

The officers elected for the following year were: President, R. H. Augur, Summerland; Vice-Presidents, W. C. Ricardo, Vernon; R. W. Palmer, Kamloops, and W. S. Summers, Gordon Head; Sec. Treas., R. M. Winslow, Victoria.

The principal items under discussion were: Transportation, markets, labor for fruit growers, and standardization of packages.

Re transportation, W. C. Bowles, General Freight Agent, C. P. R., and R. Helme, Supt. Dominion Express, Vancouver, were present to meet the fruit-growers and to add to the discussion. The consensus of opinion was that the

freight, express and icing charges were too high. Delays in transit of cars and rough handling of fruit, was also frequently mentioned. Mr. Bowles and Mr. Helme, in replying to the discussions and complaints, stated that they would do all in their power to relieve the grievances, and they would consider it a favor if the growers would always report to the companies any complaints which they had. They also enumerated some of the difficulties which the companies had to meet in handling the fruit, and which the growers should take into consideration when making complaints. The result of the discussion was that a resolution was passed empowering the executive committee to appoint a transportation committee of three members, who would handle these complaints and study the methods of the transportation companies, with a view to suggesting ways of improvement in the service.

J. C. Metcalfe, Markets Commissioner, in giving his annual report, impressed on the growers the unsatisfactory results accruing from the shipping of fruit on consignment. He also stated the value of shipping only good fruit, well packed, by which a good reputation would be established. He dwelt strongly on the value of organization of the growers to secure even distribution of fruit in the markets. Several fruit jobbers were present from the prairie cities, who commended the Government on the good work accomplished for the fruit-growers throughout the work of the Markets Commissioner. They stated the value of care being exercised not to overstock any one market, as it was difficult to get it back into a satisfactory condition the same season. Strong comments were also made on the dumping of American fruit on our markets.

The Association will recommend the following to the Dominion Fruit Conference in Ottawa next December, as the standard sizes of fruit packages: Apple boxes, 20x11x10; pear boxes, 18x11x8; four-basket plum crates, 15x15x4; peach boxes, 18x11x4; crabapple boxes, 18x11x8. In the recommendation for the crabapple box, the meeting was not unanimous, as the people of the lower section of British Columbia favored a smaller box, such as a half apple box, holding 20 or 30 pounds.

The attitude of the convention with regard to reciprocity was emphatically expressed in a strong resolution to the Dominion Government, stating that they were absolutely against any reduction of duties, and requested that the duty on fruit brought into Canada be raised to equal the duty on fruit going from Canada to the United States. In his remarks, the Minister of Agriculture said: "I hope that this reciprocity arrangement will never take place. If it does, we shall have to go out of the business of fruit-growing, and, indeed, out of many other businesses."

The committee which had been appointed in April to look into the labor situation reported that they had applications for 1,300 men for next season to work for the fruit-growers, labor which at the present time was not forthcoming. This would mean a serious handicap to the fruit-growers next season if the men could not be secured. Most of those taking part in the discussion spoke strongly against the employment of Orientals, desiring to make the Province a white one. Discussion as to the advisability of the Government assisting immigrants in their passage was made, and as to the advisability of setting aside a tract of land on which families of these immigrants could be located. A class of immigrants which would always be servants were not desired, but a class of men who would in time be able to employ labor themselves on places of their own. The necessity for a labor bureau in the Province was very strongly expressed, and a resolution passed asking the Government to encourage emigration from the British Isles, and, with this end in view, to establish a bureau of labor and set aside a receiving farm for the training of immigrants.

Four delegates were appointed to represent the Association at the Dominion Fruit Conference, to be held at Ottawa in December.

In discussing the policy of the Association for 1911, it was decided to supply spray material, paper, etc., to the members at cost. It was also decided to send crop reports by wire to all affiliated associations. Everything possible will be done to assist the fruit-growers, and all present were very optimistic in looking forward to one of the best years in the annals of fruit-growing in British Columbia.

THE FARM BULLETIN.

Disseminating the New Agriculture.

"When the country was first settled, farming was a simple equation. The more boys one had, the more land was cleared to grow more grain to buy more bush for the boys to clear. To-day there are a thousand and one factors entering into the business of farming, necessitating a very thorough knowledge of a great many sciences, and the tiller of the soil requires a very peculiar education, indeed, if he is to make a complete success of his work."

Thus spoke Dr. G. C. Creelman, President of the Ontario Agricultural College at the State Agricultural Society meeting in Albany, N. Y., last week.

"For nearly fifty years, however, we have seen the necessity for special instruction and careful experimentation along agricultural lines. Increasing millions have been spent on agricultural education, and the end is not yet. The question now arises, Is the farmer and the consumer of farm products getting the full benefit of this effort? I do not believe that too much money has been spent. I think that many of the States of the Union and Provinces of the Dominion might have spent, and may yet spend, very much more money on agricultural education and agricultural experiments, but I do firmly believe that we have neglected the carrying of the good news to the ordinary farmer on the ordinary farm. The problem is not more experiments, more bulletins, more reports, or more speeches, but how to get into actual performance those methods already in practice by our best farmers."

THE REMEDY.

"The remedy is obvious. We must place a Doctor of Agriculture in every community, must arrange for him to spend all his time at the work, and must pay him according to his ability and the work he performs."

"In the Province of Ontario we have inaugurated this method, and we are entirely pleased with the results. As yet, each man so appointed has taken charge of the work in a whole county, said county sharing the expense with the Province. So far, we have 15 men permanently located in as many counties, and each man has now an undergraduate assistant during at least the busiest months of the year."

"To secure the services of such a man, sincere evidence of co-operation must be made to the State Department of Agriculture. The town or county boards of trade, the county council, the various agricultural organizations, and the local High School, must unite in the petition, and pledge their support to the scheme."

"When appointed, a central town or village is selected where a progressive High School is situated; a good office on the main street, with plate-glass windows, is rented, with plenty of room, besides, for a combination reading and assembly room."

"By law, four half days in the week may be devoted to a two-year course in agriculture for farmers' sons in the high school. The rest of the week, and the time before and after school hours, are devoted to helping the farmers of the country, in every way looking to better methods of farming."

"This is not the time nor the place to go into the details of the work performed, nor the results accomplished, but you will see the results when I tell you that, since we have started the work, thousands of acres of land have been drained, thousands of acres of alfalfa have been planted, hundreds of short courses in stock and seed-judging have been held, egg-circles have been formed, and better prices received for the eggs; that co-operative fruit-growers' associations have been organized, with thousands of members; that our College and Station men have been in such demand for special meetings that we cannot supply half of them. Farmers' Clubs have been organized, and hold regular meetings; orchard demonstrations are held; co-operative societies formed; and, in a word, farming has taken on new life and energy, and many other counties are now clamoring for help. We are adding two or three each year, and hope, in a short time, to cover the entire Province."

THE RURAL-SCHOOL PROBLEM.

"We have now a few minutes to discuss the problem that confronts us, how to help the immature farmer, or the boy and girl in the rural school. We have tried authorizing text-books on agriculture; we have tried sending out pictures of the agricultural college to hang in the school-room; we have tried school libraries and school charts; we have sent collections of weed seeds and pamphlets on nature study; and we have made little progress."

"The trouble is, the school teacher, as a rule, doesn't know anything about farming, so how can she be expected to make any progress in the dissemination of agricultural knowledge? I believe that we have started at the wrong end. In Ontario we have turned face about, and are now meeting with some success. We have arranged with the State Department of Education to send to us at the College, for ten or twelve weeks each year, a large number of rural-school teachers in attendance at the Normal Schools. It is remarkable what enthusiasm they show in the work. Insects, plants, animal life, the orchard, the garden, the lawn, the dairy, the experimental plots, the farm itself, all come in for inspection and study, and as each teacher takes a given piece of land and performs all the nominal labor of planting and caring for the growing crop, they soon come to an appreciation of farm life and farm problems, such as was never seen in our country schools before."

EASTERN ONTARIO WINTER FAIR.

The executive committee of the Eastern Ontario Live-stock and Poultry Show have had every good reason for feeling satisfied over their show, just closed. The exhibitors, the visitors, and even the weather, have all to a gratifying extent contributed to make the show held Jan. 17th to 20th not only by far the greatest that has been held at Ottawa in the winter, but one of the best Winter Fairs held anywhere.

To begin with, the building is a capital one for a cold-weather exhibition. There is but one entrance; all the stock is in one building, and that one is splendidly heated, and in the judging arena equally well lighted. Stock and people are free from drafts and comfortable all the time, in which respects the Ottawa Fair is a splendid example for some other organizations. The new dairy building is roomy, sanitary, well lighted and warm—too warm for the cows' sake; over it is an excellent lecture room. The accommodation for sheep and hogs is somewhat cramped, and too dark to please the lookers-on or exhibitors, but that may be readily remedied.

Commendation, too, must be expressed of the excellent stall arrangement of the horses, whereby they are practically always open to public inspection, without any inconvenience to the animals.

THE HORSES.

Canadians are essentially horse-lovers, and the people of the Ottawa section are in no sense lukewarm admirers. The show of Clydesdales which was presented to the ring-side and officiating judges was one which drew forth the highest commendation. Nowhere in Canada this year, save at Guelph, was it excelled or equalled. It was especially gratifying to find such a numerous display of superior females presented, and augurs well for the future of breeding operations. All draft classes were judged by Senator Beith; Prof. M. Cumming, Truro, N. S., and John A. Boag, Queensville, Ont. Their work was commendably satisfactory, and, while difference of opinion could be held on a couple of rings, disputants must allow that the contest was sharp indeed. Exhibitors were: Graham-Renfrew Co., Ltd., Bedford Park, Ont.; Smith & Richardson, Columbus, Ont.; Hodgkinson & Tisdale, Beaverton, Ont.; Robert Ness & Sons, Howick, Que.; Wm. Meharey, Russell, Ont.; Adam Scharf, Cumming's Bridge, Ont.; Smith & Eadie, Vars, Ont.; Barber Bros., Gatineau Point, Que.; Mount Victoria Stock Farm, Hudson Heights, Que.

Clydesdales.—It has been a long time since as good a ring of aged stallions faced a judging committee in Canada. The recent Guelph show was outdone. Seventeen horses appeared for adjudication. From the beginning, it was evident that Craigisla, Gay Sprig and Sir Spencer would fight it out for the highest places. Craigisla had defeated all the others except Sir Spencer before, so that he had some advantage. Gay Sprig, however, never looked better, is a splendid moving, well-balanced horse, of splendid quality. He had, however, to be content at third. Sir Spencer is in splendid show shape, and is an exceedingly typical horse of quality. The judges, however, chose Craigisla for his massiveness, his bone, his front feet, and his going, as the fitter horse for first place. There could not help but be a difference of opinion in the rating where such grand horses contend, but those of different mind must grant that the judges had no easy task.

Nine drafty 3-year-old stallions faced the judges, and their verdict gave chief honors to the typical, massive, flash-going Sailor King. Next him went the well-known Glenavon, looking fully fit, and of the quality and type that ever pleases. A horse of much promise, and a contender for higher honors, was Bowhill Baron, thick and smooth, with good feet and the right kind of ankles, to whom third honors fell.

Scarcely as strong a class was that of the twelve two-year-olds. Baron Marquis led the ring, and, with his quality, width, depth and attractive going, could not be gainsaid. His stablemate, Ruby, showed deeper feet and a stronger top, but had neither the finish, width nor going ability of the one higher up. Baron Crawford, at third, showed the substance, type and size of a good draft horse; while compact, typical ones of a little less scale, came fourth and fifth.

Four aged Canadian-bred stallions came out. Koyama found chief favor in the judge's eyes, with his pleasing action and heavy proportions. Kinross, a big, thick, smooth finished colt, led the two-year-olds; while Baron Tofty, also of size, but with less quality, went second. Fascination again turned the trick of heading the yearling class, and, for type, quality and build, is hard to beat.

There has never been a stronger class of aged Clydesdale mares shown anywhere in Canada, according to men in continued close touch with Clydesdale affairs, as was that shown at Ottawa last

week. Type, with size, quality, smoothness, style, beauty and action, predominated from the top to the bottom of the ribbon-winning aggregation, and splendid ones stood outside the money. Baroness Insch, fit and attractive as ever, none too gracefully yielded first place to her elder, the Moncreiffe Duchess. Both are grand mares. Rosabella, at third, could get no points on moving from any of them, while, in quality and size and feminine character, was very attractive. Harmony Jess, that took fourth honors, is a new star of the first magnitude, and nothing but the very best could keep her from going higher. Black Queen, in fifth place, was a typical mare; while Marchioness, to whom sixth ribbon was allotted, has stood first in more than one keen battle, but lacked a little the fleshing needed for this fray.

In the two-year-old class, Royal Rosie came into the Canadian rings for the first time, in a convincing way. Type, compactness, character and grace all combined in her and placed her first, though she had to fight hard with the massive, clean, strong-made Bessie Lane. Lady Bane, at third, showed the make-up of an attractive, useful mare. In the yearlings, Jessie Cameron, of medium size, but well turned, trim, and with much character, was placed first.

The Canadian-bred aged mares were headed by a very stylish, balanced mare of good size in Fanny Forward, and following her was a thickly-made, clean-limbed one in Lady Gold. The yearling fillies, however, brought out the championship of this section, in Rosvelva, that is hard, indeed, to fault.

The representatives for imported championship all came from the one barn, which took a little edge off the fray. The Canadian-bred champion-

One-year-olds.—1, Smith & Richardson, on Stirling, by Royal Edward; 2, Robt. Ness & Son, on The Majestic, by Majestic Baron.

Canadian-breds.—Aged stallions—1, David G. Boyd, on Koyama, by The Rejected; 2, Robt. Ness & Son, on Merchiston Again, by Merchiston; 3 and 4, Smith & Richardson, on Jim MacBay, by Alexander's Heir, and Prince Onslow, by Lord Onslow.

Two-year-olds.—1, Mount Victoria Stock Farm, on Kinross, by British Chief; 2, Geo. A. Hodgins, on Baron Tofty, by Baron Williamstown; 3, Thomas Clarey, on Baron's Kid, by Ace of Spades.

One-year-olds.—1 and 2, Smith & Richardson, on Fascination, by Black Ivory, and Bay Ivory, by Black Ivory; 3, Chas. Dunlop, on Wandering Willie, by Knight of Merryfield.

Imported mares.—Aged—1, Graham-Renfrew Co., Ltd., on Moncreiffe Duchess, by Moncreiffe Marquis; 2, Smith & Richardson, on Baroness Insch, by Casabianca; 3, Robt. Ness & Son, on Rosabella, by Marcellus; 4, Hodgkinson & Tisdale, on Harmony Jess, by Harmony; 5, Graham-Renfrew Co., Ltd., on Black Queen, by Baron O'Dee; 6, B. Rothwell, on Marchioness, by Marcellus.

Two-year-olds.—1 and 5, Smith & Richardson, on Royal Rosie, by Royal Edward, and Lady Edward, by Edward McGregor; 2 and 3, Hodgkinson & Tisdale, on Bessie Lane, by Flash Sturdy, and Lady Bane, by Faraway Blend; 4, Robt. Ness & Son, on Rose Wright, by Douglas Chief; 6, A. Scharf, on Song Thrush, by Scottish Crest.

One-year-olds.—1, Robt. Ness & Son, on Heliodore, by Scottish Crest; 2 and 3, Hodgkinson & Tisdale, on Jessie Cameron, by Baron's Chief, and Baroness Humphrey, by Sir Humphrey.

Canadian-bred Mares.—Aged—1, Hodgkinson & Tisdale, on Fanny Forward, by Right Forward; 2, A. Scharf, on Lady Gold, by Fyvie Gold; 3, A. Millar & Son, on Lady Gartley, by Baron Gartley; 4, H. F. O'Callaghan, on Lady Mock, by Cecil; 5, F. H. Maloney, on Elsie Darnley, by Prince Patrician.

Two-year-olds.—1, Hodgkinson & Tisdale, on Cyrene, by Royal Baron.

One-year-olds.—1, and 3, John Bright, on Rosvelva, by President Roosevelt, and Salome, by Inheritor; 2, Hodgkinson & Tisdale, on Queen of Mongolia, by Right Forward.

Champion imported stallion, Craigisla. Champion imported mare, Moncreiffe Duchess.

Champion Canadian-bred stallion, Fascination. Champion Canadian-bred mare, Rosvelva.

Grand champion stallion, Craigisla.

Grand champion mare, Moncreiffe Duchess.

The show of Shires, Hackneys and Standard-breds was a quality but not a quantity show. Thos. Irving, Winchester, showed a medium-sized, well-turned, active, spirited aged stallion, Beamhope Dalesman, winning championship of the breed.

Two excellent Hackney stallions were shown, in Terrington Lucifer and Dainty Duke of Connaught; while the two-year-old, General Melrose, led the class for Standard-bred stallions, with his excellent limbs and easy, rapid going. W. H. Gibson, Beaufield, Que., judged the Hackneys, and Dr. Routledge, Lambeth, the Standard-breds. Awards follow:

Shires.—Aged stallions—1, Thos. Irving, on Beamhope Dalesman, by Nyn Hitchin Duke; 2, John Johnston, on Admiral Togo, by Mars.

Mares, any age—1, John Johnston, on Black Beauty, by Admiral Togo.

Champion stallion, Beamhope Dalesman. Hackneys.—Aged stallions—1 and champion, Mount Victoria Stock Farm, on Terrington Lucifer, by Copper King; 2, Rothwell, on Dainty Duke of Connaught, by Gaston Duke of Connaught.

Hackney mares, aged—1 and 2, Mount Victoria Stock Farm, on Cymbal, by Mathias, and Counterfoil, by Copper King; 3, G. E. Stacey, on Miss Conquest, by Conquest 2nd.

Two-year-olds.—1, Mount Victoria Stock Farm, on Royal Ophelia, by Royal Ophelian.



Luck Girl (imp.).

First-prize pure-bred Ayrshire, and champion dairy cow, at the Eastern Ontario Winter Fair, Ottawa. Owned by R. R. Ness, Howick, Que.

ship went to Fascination, but he was defeated for the grand championship by Sailor King.

Awards.—Aged stallions—1, Graham-Renfrew, Ltd., on Craigisla, by Prince Thomas; 2, Robt. Ness & Son, on Sir Spencer, by Sir Hugo; 3, Graham-Renfrew, Ltd., on Gay Sprig, by Refiner; 4, Wm. Meharey, on Golden Crown, by Gold Mine; 5, Smith & Richardson, on Baron Russell, by Baronson; 6, Mt. Victoria Stock Farm, on Lord Aberdeen, by Netherlea; 7, Graham-Renfrew Co., Ltd., on Top Spot, by Baron Hood; 8, Routledge & Kerr, on Knight of Maryfield, by Prince Thomas.

Three-year-olds.—1, Graham-Renfrew Co., Ltd., on Sailor King, by Pacific; 2, Smith & Richardson, on Glenavon, by Baron of Boquhan; 3, Robt. Ness & Son, on Bowhill Baron, by Baron's Pride; 4, Smith & Richardson, on Invergowrie, by Marmon; 5, Graham-Renfrew Co., Ltd., on Wamphray, by Count Victor; 6, Smith & Richardson, on Dumore Shapely, by Baron o' Buchlyvie; 7, Barber Bros., on Dumore Burns, by Baron o' Buchlyvie; 8, A. Scharf, on Prince Charlie of Fife.

Two-year-olds.—1 and 2, Graham-Renfrew Co., Ltd., on Baron Marquis, by Baron's Pride, and Ruby, by Ruby Pride; 3, Smith & Richardson, on Baron Crawford, by Baron Sensation; 4, Wm. Meharey, on Baron Cathbert, by Baron's Pride; 5, Barber Bros., on Baron Kirkeowan, by Baron's Pride; 6, Smith & Richardson, on Baron Mansel, by Baron's Pride; 7, Robt. Ness & Son, on Lord, by Ruby Pride; 8, A. Scharf, on Silver Mark, by Silver Cup.

Sheep.—Cotswolds—1, L. Parkinson, Eramosa, 2 and 3, E. Brien & Son, Ridgetown. Lincolns—1, L. Parkinson; 2, E. Brien & Son. Leicesters—1 and 2, A. & W. Whitelaw, Guelph. Oxford Downs—1 and 2, J. W. Lee & Son, Simcoe. Shropshires—1, J. & D. J. Campbell, Woodville; 2, Lloyd-Jones, Burford. Southdowns—1 and 2, Lloyd-Jones. Dorsets—1 and 2, R. H. Harding, Thorndale. Hampshires and Suffolks—1 and 2, J. W. Lee & Sons. Grades and Crosses—1, Geo. Baker, Simcoe; 2, Lloyd-Jones.

Swine.—Three pure-breds, export, bacon—1 and 3, J. Featherston & Son, Streetsville; 2 and 4, Brethour & Nephews, Burford; 5, Geo. Bradley, Manotick; 6 and 7, Alex. Dynes, Ottawa.

Three grades or crosses.—1 and 3, Featherston & Son; 2, Geo. Bradley; 4, R. A. Heron, Billings' Bridge; 5, Brethour & Nephews.

Sweepstakes for three best carcasses.—1, Featherston & Son.

Poultry, like the other departments of the show, had a full house. More than a hundred birds beyond last year's record were on exhibition. One of the judges declared that every department was so strongly represented that one could scarcely say which was the strongest end of the poultry exhibit. The results of educational campaigning is beginning to be evidenced in the dressed-poultry exhibit, though much remains to be learned.

There was a moderate-sized exhibit made of the grains. The presence of Western Ontario exhibitors was fully felt, as they carried off a large part of the prizes. This fact further proves that the farmers of Eastern Ontario and Quebec have not yet fully realized the practical importance of good seed. There was a noticeable presence of weed seeds and mixtures of grains in numbers of the Eastern exhibits.

Gallon Eggs.

Unsavory rumors have been afloat regarding importations into Canada of gallon eggs; i. e., eggs minus the shells, put up in gallon tins and brought into the country from Russia and other countries. In his address at the poultry session of the Ontario Winter Fair, John A. Gunn alluded to this article of commerce, and in a recent communication to the editor of "The Farmer's Advocate," Mr. Gunn stated: "We understand that some cars have been imported into Canada during the past fall, and have been distributed to centers such as Toronto, Winnipeg, Vancouver, and we believe London got its share. Inasmuch as we have not heard any complaint from those who used same, we judge that the product must be treated in such manner as to preserve the eggs."

Now, the fact that eggs are sold in gallon form does not render them unfit for use in confectionery and baking, but, as a general rule, it is understood the best eggs are not sold that way. Indeed, we are told by those in the produce business that these gallon eggs may be doubtful stock, strained to remove clots and the like. The fact that gallon eggs were brought from Russia last year, past the great consuming country of England, and sold in the midst of our own egg-producing districts, is indication that they must have possessed the inducement of cheapness, and why would good eggs have to be sold cheap enough to make this trade profitable? The matter certainly looks as though it were worth investigating, and Mr. Gunn's statements at Guelph aroused a tremor of apprehension. This was speedily allayed, in part, at least, by the assurance of an inspector at Montreal, that a shipment of these gallon eggs had been examined and found unobjectionable. Now comes a despatch from Montreal, dated January 19th, to the following effect:

"A consignment of canned eggs from China valued at \$75,000, has been seized by the city, and the Board of Control ordered to-day that not a single can must be sold in the city. The owners were afterwards given permission to remove the eggs from the cold-storage warehouse, but if there is any delay in removal, every can will be destroyed. The seizure was made by Dr. McCarrey, Chief Food Inspector, of the city."

"The experts in their report say: 'The eggs in the cans were found to be frozen, and are said to have come from China. The eggs, while in the frozen condition, had hardly any noticeable odor, as would have been expected. A small part of the eggs from samples were taken and placed in a warm temperature. Putrefaction of a violent nature resulted in about 24 hours, showing the presence of large numbers of bacteria. Such bacteria were probably introduced at the time of packing, the subsequent freezing checking their action.'

"An experiment was conducted to determine the effect of a small portion of the eggs when inoculated into a guinea pig. On December 24th a sample of the mixture with sterilized water, was injected subcutaneously into a guinea pig. The pig died in less than two days. The consignees were ordered to remove the stuff from the city, and some curiosity is exhibited as to who will finally get them."

A subsequent despatch stated that it was believed this shipment had been rejected in New

York before coming to Montreal. On the other hand, the representative of the owners of the frozen eggs was reported, in an interview, as saying that the stock complained of was perfectly wholesome and pure, and that the city acted in a very unjust and arbitrary manner in proposing to confiscate the shipment on the strength of a single report. All the same, we would not care to eat cakes made by manufacturers who use these gallon eggs.

Dairy Delegation at Ottawa.

On Thursday, Jan. 19th, about 500 dairy-produce manufacturers and milk producers waited upon Sir Richard Cartwright, petitioning for the correction of certain unjust conditions existing in the cheese and butter trade. Their chief grievances were with the present system of sales, whereby the producers are at the mercy of the buyers. According to the present system of weighing, which is done by a representative of the Montreal Produce Association, the seller of the cheese stands to lose a considerable amount during the season. Furthermore, there is scarcely a season in which some section of country does not lose through the failure of some buying firm. The delegation therefore petitioned for fairer regulations regarding cheese weighing, for the bonding of cheese-buying firms to prevent loss through failures, and for reciprocity with the United States in dairy products.

Regarding weighing, the memorial first recounted the rules governing the weighing of cheese and butter now in force, and went on to say: "We are of the opinion that rule 2 is not based on any principle of fairness or justice to the dairymen of Canada. The objectionable clause in the rule reads as follows: 'Actual weights must be shown on certificates, but no gains shall be applied against losses in the average; gains of 2 pounds and over shall be governed by rule.'

"This practice is a source of great annoyance, and is looked upon by the factory men, to speak mildly, as fraudulent.

"This rule is insisted upon by the buyers for the purpose, as they explain, of avoiding cuts for short weight at the point in Europe to which they ship. This the undersigned looks upon as entirely another transaction, for which the country maker should not be held responsible.

"We would, therefore, suggest that legislation be enacted whereby five cheese, or ten per cent. of each shipment of cheese, be weighed in one lot, instead of each box of cheese separately, and that the actual weight be given, instead of the up beam, with one-quarter or one-half pound, as is the custom. We believe that by this method an honest average would be obtained, and that the dairymen would receive their just returns.

"Owing to the wrongs in the weighing of cheese and butter in Montreal, this committee pray that your Government will appoint an official weigher, who will weigh all cheese and butter, instead of the present weigher, who is an appointee of the Montreal Produce Merchants' Association."

Sir Richard Cartwright promised careful consideration of the demands, some of which, he stated, were entirely new, and would, therefore, require close investigation before being acted on.

Must Trace to Imported Crosses.

A pretty pickle for breeders of pedigreed live stock has been provided by a recent amendment to the new American regulations governing the free importation of pure-bred animals. Our readers will recall an article in the Christmas number, as well as subsequent items, setting forth that on and after January 1st, 1911, animals to be imported into the United States free of duty for breeding purposes would have to be accompanied by certificates of the Bureau of Animal Industry at Washington, to the effect that they were pure-bred, of a recognized breed, and duly registered in a foreign book of record for that breed. The foreign books recognized included the prescribed books in the countries in which the respective breeds originated, and also the Canadian National Records for quite a number of breeds. This, it was assumed, put the Canadian records for these thirty-two or thirty-three specified breeds upon a parity with the books kept in the respective countries of origin. Registration in American books of record was not recognized as entitling to the granting of an import certificate, for reasons already explained through "The Farmer's Advocate." It looked, therefore, as though the new regulations would give quite an impetus to Canadian registration, especially in the case of certain breeds of sheep, heretofore recorded largely by some of our breeders in the American rather than the Canadian books.

But the complexion of things has been entirely changed by a subsequent amendment, made Dec. 8th, 1910, and issued December 30th, modifying paragraph 2, section 4, regulation 2, of the regulations issued November 25th. "So as to provide that no animal or animals registered in the Canadian National Records shall be certified as pure-bred by a foreign breeder."

cept those which trace in all crosses to registered animals in the country where the breed originated."

It is difficult to believe that the framers of this amendment could have been fully aware of the complications it would create. Following are some of the breeds that will be most vexatiously affected: Clydesdale, Shire, Hackney, Percheron and Thoroughbred horses; Shorthorn and Ayrshire cattle; Berkshire and Essex swine, and many breeds of sheep, particularly Shropshires and Cotswolds.

It may be news to many that Canadian stud-books and herdbooks for some breeds of live stock were established before there were such books in the country of origin, hence many animals recorded in these books trace to ancestors imported and recorded in Canada at a time when there were no studbooks in which to record them in the countries from which they came.

The Ayrshire Herdbook, for instance, was not established in Great Britain until 1877, while Canadian records for that breed were established in 1870, and importations of Ayrshire cattle to Canada began as early as 1845. The imported foundation stock of very many of the finest herds of Ayrshire cattle in the United States and Canada is consequently not recorded in the Scottish Herdbook, and under the new regulations animals tracing back to such foundation stock cannot be brought into the United States without the payment of duty.

Take, again, the case of the Berkshires. The American Berkshire record was established ten years before the British record, and, consequently, it means that all animals imported before the British book was established could not be recorded over there. Now, the foundation of the Dominion Swine-breeders' record is the American Berkshire record and other early importations. A good many Berkshires have been brought from the United States to Canada in recent years, tracing to this stock not recorded in the British Berkshire record. Only animals which trace to recent importations from Great Britain will, therefore, if the regulation as amended is strictly interpreted, be granted free entry into the United States.

As for sheep, the Accountant of the Canadian National Live-stock Records says: "I doubt very much if ten per cent. of Canadian-bred sheep will qualify for free entry." And regarding Shorthorns, he adds: "Although our Shorthorn standard is the highest in the world, very few animals will be eligible for free entry. At least a large percentage trace to imported crosses not recorded in England."

College Short Courses.

During the last two weeks, live-stock and cereal short-course students have been occupying the attention of the teaching staff at the agricultural colleges. Everywhere the institutions report the very best kind of a time. In Nova Scotia they have never before had such an attendance or so keen an interest in all the work. At Macdonald College there has been an increase of 30 per cent. in attendance over last year; they have had the assistance of capable, experienced men . . . outside points in their teaching, and have made excellent use of their slaughter-houses in their live-stock work. At Guelph there have been about 150 students in attendance. The judging, breeding, feeding, care and management of stock has been fully discussed; the selection of seed, the preparation of the land, method of sowing, with the many other factors affecting grain production, have been taken up, with the light of the experimental work to aid.

Why so few taking these courses? It honestly makes one's heart sick to go through the country and find such an amazing lack of knowledge on these very phases of agricultural life which concern the people every day, and then see a bare 300 take in a short course.

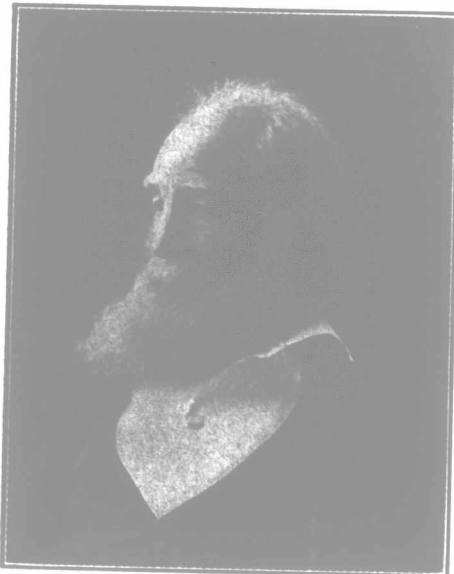
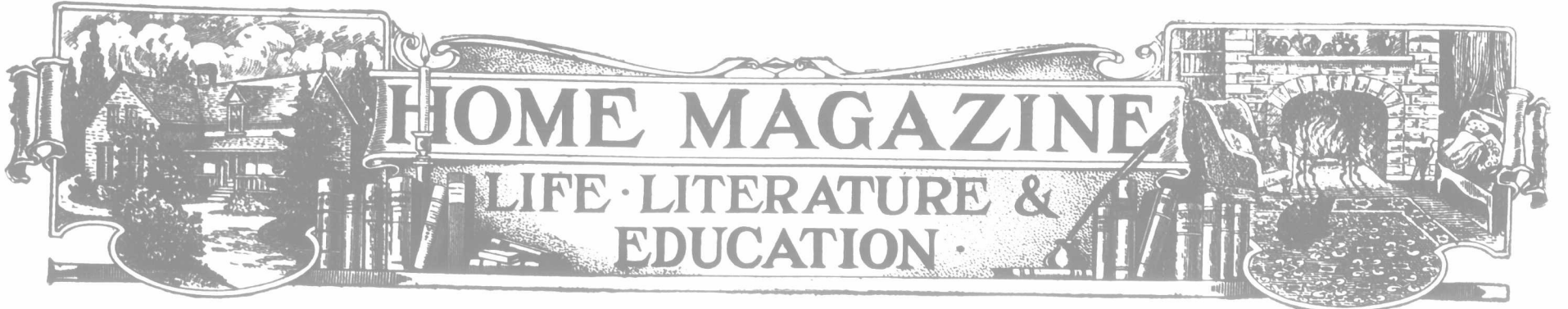
The instruction of the short courses must be a lot to the people, and there seems hope that, in Ontario, the County Representatives are going to solve it. Still, two weeks at the nearest college every year would prove a veritable blessing to our farmers, if only they would go.

Want Vegetable Weights Changed.

Suggesting changes in the standard weights as regards vegetables, and also with representations on the tariff, a delegation of vegetable-growers from Ontario and Quebec interviewed Sir Richard Cartwright Wednesday, Jan. 18th. The suggested new weights per bag are as follows: Potatoes, 80 pounds; onions, 75; turnips, 70; artichokes, 75; beets, 70; carrots, 70; parsnips, 60.

I beg to advise you that I have made arrangements with the railway agent to visit all certificates of parties attending the live-stock meetings at Toronto, from February 1st to 10th, at the Walker House, Toronto. He will be there Feb. 1st, 2nd, 3rd, 7th, 8th, 9th, and 10th, and all parties having properly vised certificates will be returned home free.

W. G. PETTIT,
Secy. for Live-stock Convention



Walt Whitman.

Little Trips Among the Eminent.

Walt Whitman.

Walt Whitman is, perhaps, the most unique figure in modern literature. Although a contemporary, he can scarcely be said to have been one of the group of New England writers who found inspiration and companionship in one another during the brilliant literary period of the last century. Apart he ran, as he wished, the democratic individualist; nor, had he wished otherwise, was the door very well opened to him, for, with the exception of Emerson and Thoreau (no mean exception, be it noted), he was repelled on all sides, held up as a vulgarian and a poseur. Yet Walt Whitman has not been wholly without admirers—and he was willing to wait. It is safe enough to say, however, that he will never be universally approved. Popular taste, ever conservative, will turn aside from him, as it has turned, and he will continue to be, as a critic has noted, appreciated by but the "literary few."

He was born at West Hills, Long Island, N. Y., May 31st, 1819, on a farm which had been in the family since the early settlement, and although the family moved to Brooklyn while he was yet but a child, the hills, and long sea-beaches, and vast outlook upon the Atlantic, of his birthplace were always interwoven with his sweetest dreams, and so the home of his childhood became the "Paumanok" of his poems. All his life he continued to revisit Long Island, staying with friends, and obtaining the contrast, the other side of life, from the hurrying, surging humanity of great cities, which also he loved.

In Brooklyn the lad attended public school, but at thirteen entered a printing office, and remained there for a few years. At seventeen he was teaching school and beginning to write articles for the papers, and in 1839 he became publisher and editor of a little paper of his own at Huntington, which existed for about two years.

At the end of that time he entered upon a time of "loafing and inviting his soul," as he called it—a time of apparent idleness and shiftlessness which puzzled his friends. For fifteen years he did just enough work at writing, carpentering, printing—anything, in fact, that he could find to do—to keep him in food and clothes, spending the greater part of

his time in wandering about on lone sea-shores, up crowded Broadway, in workshops watching the men and talking to them, passing and re-passing on the ferry-boats at Brooklyn, observing everywhere, and thinking out the philosophy which was finally to be voiced in "Leaves of Grass."

In 1848 he took a long trip through the Western and Southern States, as far as New Orleans, and in 1855, "Leaves of Grass" appeared—a thin volume, with, for frontispiece, a picture of Walt himself in shirt-sleeves, with a slouch hat tipped to one side, his arms akimbo.

The result was not, perhaps, what Whitman, after fifteen years of thinking and two years of anxious, feverish work, expected. The unusual form of the poem, its defiance of all tenets of rhyme and poetical beauty, as popularly accepted (the "barbaric yawp," upon which Whitman really prided himself), its untamed, unshorn thought, apparently "unsettling" things more than Emerson himself had done, while cutting loose altogether from the refined taste and quiet polish of "the master"—all combined to call down upon the author's head a storm of ridicule and criticism. His constantly-repeated "I," and "I, Walt Whitman," were looked upon as intolerable egotism, the critics missing the point altogether that Whitman, by his "I," placed himself in the shoes of the democratic American, the "divine average," the new superman of his dreams whom he would see supplant the old. Even the unfortunate frontispiece did not escape, but was pointed to as proof positive that the author was but a common poseur.

Before long, however, drops of balm began to fall. Thoreau exclaimed, "He is Democracy," and, although puzzled, gave willing tribute: "There are two or three pieces in the book which are disagreeable, to say the least, simply sensual. But I do not believe that all the sermons, so-called, that have been preached in this land, put together, are equal to it for preaching." . . . Burroughs, too, was an early champion, and Emerson himself hailed the book as "The most extraordinary piece of wit and wisdom that America has yet contributed." He also wrote Whitman a letter, in which he said, "I give you joy of your free and brave thought. I have great joy in it." This letter Whitman's publishers persuaded him to have placed in the preface; and afterwards, to Emerson's extreme annoyance, it was not removed when additions had been made to which he could not but take exception. As a matter of fact, many extensions were made to "Leaves of Grass." Edition after edition was issued, according as the poet had means to pay for the printing, each elaborated and increased in volume.

When the great war broke out, Whitman was much criticized for not going into the fighting ranks. He was a man of superb health and magnificent physique. His appearance used to attract great attention from the passengers when he came on board the ferry boat, a friend who knew him well has written, "He was quite six feet in height, with the frame of a gladiator, a flowing gray beard mingled with the hairs on his broad, slightly bared chest. In his well-handled checked shirt-sleeves, with trousers frequently pushed into his boot legs, his fine

head covered with an immense slouch black or light felt hat, he would walk about with a naturally majestic stride, a massive model of ease and independence. I hardly think his style of dress in those days was eccentric; he was very antagonistic to all show or sham, and I fancy he merely attired himself in what was handy, clean, economical and comfortable."

Such a man might have made an ideal soldier, but, like Tolstoi, Whitman believed all war was wrong. He would not go into the fighting ranks, but he did enlist as volunteer nurse, paying his own expenses, and spending his great strength so assiduously in caring for sick and wounded soldiers that his health broke completely down, culminating in a long attack of paralysis, in 1873. At the close of the war he was given a Government position, but was dismissed by the Secretary of State, who disapproved of his writings. Immediately, O'Connor, of Washington, took up the cudgels in his behalf, attacked the Secretary, and, by both speech and writing, urged his vindication of the "Good gray poet." As a result, Whitman was given another clerkship, which he held until stricken down, in 1873.

The remainder of his life was spent in Camden, N. J., where one of his brothers lived. He had never married, and poverty now came to him, but his last years were cheered by the visits of troops of friends, among them many eminent men from abroad, for his work had been appreciated more and earlier in France and England than in America. Indeed, his most enthusiastic following has ever been abroad. He died March 26th, 1892.

"It is permitted to us to doubt his taste and wisdom, but not his brave sincerity," a biographer has written, and it is perhaps true that, in reading Whitman, his defects strike us first—so strongly as to blind against the strength which underlies, for Whitman in many respects was ahead of his time—and ours. His endless enumerations tire us; there is objection to be taken to his uncalled for use of foreign words and exclamations; in certain of his poems the rawness and bareness of his descriptions may even revolt. But beneath all lies Whitman, the poet of Democracy, Whitman the optimist. He believes the divine in everything and in every man, hence:

"I give the sign of democracy,
By God, I will accept nothing which
all cannot have their counterpart
of on the same terms."

The universe he looks upon as fluid, changing, ever improving, and going on to some grand end in which each individual soul shall realize itself. Through what seems evil the soul grows strong. Trials and catastrophes strengthen it. Through the body, also, the soul, which in this life is indissolubly united with it, is developed, hence the body and every part of it is sacred, and should be revered as sacred. Life, then, should take most count of the health of the body and the growth of the soul. Riches do not really make a man rich. "I will make the true poem of riches, namely, to earn for the body and the mind what adheres, and goes forward, and is not dropped by death." Death is not to be feared, but to be looked upon as an opening into a broader sphere.

"All goes onward and outward, nothing collapses,
And to die is different from what
anyone supposed, and luckier."

Life, then, should be a vigorous, important thing, and, for the sake of the race, mothers and fathers should be perfect, and bring up perfect children. Whitman is, therefore, a pioneer of eugenics. He would teach independence, individualism, the love of all health and the outdoor life, appreciation of nature, the deep religious sense which may throw aside shams and orthodoxies, but clings to that which is fundamentally hopeful and true. As for himself, he is to be the "poet of Personality"; he is to teach lessons that people are overlooking; literature is a great force in the world, and through it he is to realize his purpose in the world, the emancipation, perhaps, of others. He would make them "bold swimmers," men who think and accomplish, proving their personality, instead of mere automatons, "virtuous out of conformity or fear."

It is hard to know where to stop, in attempting to condense the philosophy of any original thinker within the confines of a short article. Perhaps here, as well as anywhere. Those who are interested may go to the works of the "gray poet" himself; but we would advise those who have not already a broad experience of literature and a deep insight into life, to suspend judgment until they have studied, also, "A Study of Walt Whitman," by Symonds; "Walt Whitman," by Clarke; and Dr. Bucke's Biography. Otherwise, with the exception of that expressed in a few magnificent passages, the poet's philosophy may be lost, and the only impression left one of disappointment and disgust. Whitman is a writer for maturity and for thoughtful maturity, but even that sometimes needs assistance and illumination. Indeed, the tragedy of Whitman's life was that, although he proclaimed himself the poet of the people at large, the people have never cared for him. "They preferred the cultured Longfellow, the 'snow-bound' Whittier. Whitman is still the poet of a literary class—the last thing that he aimed at."

It may be interesting to inhabitants of Western Ontario to know that Whitman once visited Dr. Bucke at London, and that there are still one or two in that city who remember seeing him at that time.

Bits from Whitman.

What do you think has become of the
young and old men?
And what do you think has become
of the women and children?

They are alive and well somewhere,
The smallest sprout shows there is
really no death.

And if ever there was, it led forward
life, and does not wait at the end
to arrest it,
And ceased the moment life appeared.

All goes onward and outward—nothing
collapses,
And to die is different from what
anyone supposed, and luckier.

* *

I play not here marches for victors
only—I play great marches for
conquered and slain persons.

Have you heard that it was good to
gain the day?

I also say it is good to fall—battles
are lost in the same spirit in
which they are won.

Vivus to those who have failed!

The wonder is, always and always, how can there be a mean man or an infidel?

This day before dawn I ascended a hill, and looked at the clouded heaven.

And I said to my Spirit, When we become the enfolders of these orbs, and the pleasure and knowledge of everything in them, shall we be filled and satisfied then?

And my Spirit said, No, we level that lift to pass and continue beyond.

Underneath all are individuals—I swear nothing is good to me now that ignores individuals.

O, I see now, flashing, that this America is only you and me.

The greatest city is that which has the greatest man or woman; If it be a few ragged huts, it is still the greatest city in the world.

Charity and personal force are the only investments worth anything.

I do not think seventy years is the time of a man or woman, Nor that seventy millions of years is the time of a man or woman, Nor that years will ever stop the existence of me, or anyone else.

O the joy of manly self-hood! Personality—to be servile to none—to defer to none—not to any tyrant, known or unknown.

To walk with an erect carriage, a step springy and elastic, To look with calm gaze, or with a flashing eye, To speak with a full and sonorous voice out of a broad chest, To confront with your personality all the other personalities of the earth.

Afoot and light-hearted I take to the open road, Healthy, free, the world before me, The long brown path before me, leading wherever I choose. Henceforth I ask not good-fortune—I am good-fortune; Henceforth I whimper no more, postpone no more, need nothing. Strong and content, I travel the open road.

Is reform needed? Is it through you? The greater the reform needed, the greater the Personality you need to accomplish it.

I say nourish a great intellect, a great brain; If I have said anything to the contrary, I hereby retract it.

Have you learned lessons only of those who admired you, and were tender with you, and stood aside for you?

Have you not learned the great lessons of those who rejected you, and braced themselves against you? Or who treated you with contempt, or disputed the passage with you?

Have you had no practice to receive opponents when they come?

Pleasantly and well-suited I walk. Whither I walk I cannot define, but I know it is good, The whole universe indicates that it is good, The past and the present indicate that it is good.

The Windrow.

Ed. Heyse, the winner of the Nobel Prize for Literature for 1910, will celebrate his eighty-first birthday on the fifteenth of March next.

The coronation festivities will extend from June 19th to June 30th, and will be more elaborate than those which attended the coronation of King Edward.

The president of the Board of War and the High Commissioner of the Navy in China have cut off their queues. The fashion is spreading rapidly, and queues are falling by the thousand in the more enlightened portions of the Empire.

The French Institute, of which the French Academy of Sciences is a part, voted by 92 to 52 that Madame Curie should not be admitted to the latter, because she was a woman. Madame Curie, it will be remembered, discovered polonium, and isolated metallic radium.

There was no serious war during 1910, and more was done towards a general peace propaganda than in any preceding year. Among the deaths of prominent people during the year were those of King Edward VII., Tolstoi, Mark Twain, Dr. Koch, Florence Nightingale, Goldwin Smith, Bjornstjerne Bjornson, Holman Hunt, Marion Crawford, Mrs. Julia Ward Howe, Mrs. Eddy.

Hope's Quiet Hour.

A Summons to Jerusalem

The common problem yours, mine, everyone's, Is not to fancy what were fair in life, Provided it could be, but finding first What may be, then find how to make it fair, Up to our means,—a very different thing. —Robert Browning.

A reader of "The Farmer's Advocate" has twice asked me to write on 2 Chron. xxx: 18-20. When I said that he ought to tell me what lesson we might learn from that passage, he refused to assist, saying that he left that to me. So, if he does not approve of this article, I can't help it. If you will read the text—which most of you won't do—with the chapters that lead up to it, you will understand the situation of things. The wicked king Ahaz had tried to kill the worship of Jehovah. He was not satisfied with cutting in pieces the sacred things that were in the house of God and shutting up the doors of the Temple, but "he made altars in every corner of Judah he made high places to burn incense unto other gods." When Ahaz died, his son, Hezekiah at once faced the common problem. He did not sit down in discouraged hopelessness because it was impossible to have the Church as pure and beautiful in its worship as he wished to see it, but he made the best of things as they were. He at once opened the house of the LORD and told the Levites to sanctify themselves and cleanse the dismantled sanctuary. It was done with reverence and swiftness. The priests went into the inner part—where the rest of the people were forbidden to enter—and "brought out all the uncleanness that they found in the temple of the LORD into the court." Then the Levites threw into the brook Kidron the accumulated rubbish of years. In sixteen days this great housecleaning was done, and the king commanded the priests to offer sacrifices and make an atonement for all Israel. The people rejoiced in the great revival and brought in their offerings of oxen and sheep, by hundreds and by thousands. Hezekiah also rejoiced to see that God had prepared the people to co-operate with him, "for the thing was done suddenly." It was too late to keep the passover at the proper time, so he took counsel—being a wise man—and decided to celebrate the great national feast a month later. Hezekiah only ruled over the kingdom of Judah, but he invited all the tribes of the sister-kingdom of Israel to come to Jerusalem and join with him and his people in worshipping God in the way that God Himself had commanded. The posts passed with his letters of invitation "from city to city through the country of Ephraim and Manasseh even unto Zebulun: but they laughed them to scorn, and mocked them.

Nevertheless, divers of Asher and Manasseh and of Zebulun humbled themselves and came to Jerusalem." Hezekiah had invited all the people of Israel; and when "a very great congregation" had assembled to keep the feast, he knew that many of those present—especially the visitors from Ephraim, Manasseh, Issachar and Zebulun—had come carelessly and hurriedly. They had not taken time to perform the ceremonial acts of purification required by Law. Perhaps—as heathenism had nearly driven out the worship of Jehovah for many years—they were entirely ignorant of the Law. Yet they had come to eat the passover; and this was a proof that they really desired to seek God, the LORD God of their fathers, though they were "not cleansed according to the purification of the sanctuary," and though they ventured to keep the sacred feast "otherwise than it was written." So Hezekiah, knowing that his attempt to work a great reformation was only a partial success, interceded for this great crowd of well-meaning but ignorant people, saying: "The good LORD pardon every one that prepareth his heart to seek God . . . though he be not cleansed according to the purification of the sanctuary."

And the LORD, we are told, "harkened to Hezekiah, and healed the people."

That is the situation which my friend wished me to write about. It seemed rather doubtful whether such a motley multitude could join, in brotherly fashion, in the worship of God; but the success of the undertaking was wonderful. The feast was kept for a week—the time prescribed by the Law of Moses—and then it was unanimously decided by the eager crowd to keep it "other seven days with gladness." There was greater joy in Jerusalem than had been known there since the time of Solomon, who had built the Temple about 800 years before. Best of all, when the priests and Levites arose and blessed the people, "their voice was heard, and their prayer came up to His holy dwelling-place, even unto heaven."

What lessons can we learn from this interesting bit of history?

Hezekiah's example is worth following. He found the outward signs of religion completely absent—a pretty sure sign that the spirit of religion was at a low ebb—but he had faith in human nature. He knew that man is always restless until his heart rests securely on God. Finding men straying from their Father, he invited them to come home, feeling sure that they really wanted God infinitely more than they wanted anything earthly.

Let us take that view of our brothers and sisters. We are hungry for God and holiness, so are they. We—because we have the light of the knowledge of God committed to our charge—are given the glorious privilege and the solemn responsibility of making that knowledge known throughout the world. Are we exerting ourselves to carry out our Master's command as swiftly as possible? Do we, who are honestly trying to walk in the way of God's commandments, ever pray for those who have sinned ignorantly in unbelief? God healed those who, without the careful preparation which He demanded, had crowded into His Sanctuary. He healed them, the record says, because Hezekiah had prayed for them.—2 Chron. xxx: 20.

The effectual, fervent prayer of a righteous man availed much. It was not because he was a king that his prayers accomplished such great things. Is God, even now, waiting to bestow a rich blessing on those who are seeking in thick darkness for the Vision of His Beauty? Is He waiting for our prayers? How long will He have to wait?

Those ignorant members of the Jew Tribes were very dear to the God of Israel. How glad He must have been when Hezekiah invited them and prayed for them. And all the tribes of the earth are very dear to Him now. Our indifference to the spiritual needs of our brothers and sisters must cut our Father and their Father to the heart.

And then there are others, others who worship God with all their hearts, and yet are not in full accord with ourselves. Perhaps they differ from us in many important matters—the "cleansing" before the Passover, which those ignorant Israelites had imperfectly performed or entirely omitted, was a very important duty. What then? If we enjoy privileges of instruction or environment which

they do not possess, is that any reason for trying to stand apart from them or for looking down on them in half-contemptuous pity? We must answer to God for knowing His will; for, if we know and do not obey, we shall receive greater condemnation.

And then there is God's view of the whole matter. Christ is the King who has invited us to keep the Feast. We are required to come with clean hands and pure hearts, with love to God and to our neighbors. We flock in crowds to the House of the Lord, but there is great need that our King should pray for us the prayer of Hezekiah: "The good LORD pardon every one that prepareth his heart to seek God, the LORD God of his fathers, though he be not cleansed according to the purification of the sanctuary."

Very often we worship God with our lips, while our hearts are busy with everyday work or pleasure. Sometimes, perhaps, we even dare to ask God to forgive us "as we forgive," while we are nursing a grievance against some other of His children. Sometimes we expect Him to accept the gifts laid at His feet, even though they are really offered to win the approval of men or gratify our own self-esteem.

But we come to seek God, and our King "ever liveth to make intercession for us." He is our Advocate, pleading His own perfect Righteousness, which has satisfied all the requirements of Infinite Holiness. He is so completely one with us, that He has been "made sin for us," as St. Paul says (2 Cor., v: 21), "that we might be made the righteousness of God in Him." One great Name of the King promised by God through the prophets, is "THE LORD OUR RIGHT-EOUSNESS." We press close to Him for cleansing and healing, knowing that He is able, as He is willing, to sanctify and cleanse His loved Bride—the Church—that He may "present it to Himself a glorious Church, not having spot, or wrinkle, or any such thing; but that it should be holy and without blemish." We, who long for perfect holiness, and yet stain our white robes of innocence by countless sins of omission and commission, can echo the glad words of Isaiah as we draw near to our King, Who, as the prophet sings, "hath covered me with the robe of righteousness, as a bridegroom decketh himself with ornaments, and as a bride adorneth herself with her jewels."

Our King has summoned us to Jerusalem. We are ready to obey the call. Where can we—here on this earth—find the golden city of God?

"Where in life's common ways With cheerful feet we go; When in His steps we tread Who trod the way of woe; Where He is in the heart, City of God! thou art. Not throned above the skies, Nor golden-walled afar, But where Christ's two or three In His Name gathered are, Be in the midst of them, God's own Jerusalem!

DORA FARNCOMB.

The Roundabout Club

Literary Society Announcement.

Study IV.—Write a "character" sketch. This may be in story form, if you choose, but may be simply a descriptive essay, whose subject may be man, woman or child.

This subject gives opportunity for very artistic treatment,—whether pathetic, humorous, or simply beautifully descriptive—and we hope that our students will find much pleasure, as well as good composition practice, in writing upon it. Kindly send essays so that they may reach this office within three weeks after the date upon which this paper is issued. As before, leather-bound classics will be given as souvenirs to those who do the best work.

JUST THINK I—A handsome forty-piece Austrian China Tea Set for sending in only four new yearly subscriptions to "The Farmer's Advocate and Home Magazine," at \$1.50 each.

The Beaver Circle.

[All children in third and fourth books, also those who have left school, or are in High School, between the ages of 11 and 15, inclusive, will write for Senior Beavers. Kindly state book at school, or age, if you have left school, in each letter sent to the Beaver Circle.]

Bill's Questions.

At school we nicknamed Billy Clarke "The Living Human Question Mark." You never saw a chap so spry. At asking "When?" and "How?" and "Why?"

But chiefly "How?" That things were so was not enough; Bill had to know "The inner works," we used to say. Why, Billy studied how to play! We knew a twist would curve that ball; But Billy asked the teacher all The reasons why; and after that He threw some curves you couldn't bat. We went, one Saturday, for fun, To watch the roaring engines run At Holden's works. But Bill was queer; He chatted with the engineer And firemen all the afternoon Of wheels and shafts, and pretty soon He made an engine that could turn His little lathe and work the churn. I've met with boys who asked a lot Of questions, just to talk; but not Our Bill! You see, his questionings Went hand-in-hand with doing things.

Our Bill is building navies now; His questions helped to teach him how. I greeted him in Central Park Last week, with "How's the Question Mark?"

He laughed and blushed—the same old Bill— And answered, "Asking questions still." —Arthur Guiterman.

The Red Squirrel.

The red squirrel is about the smallest of the squirrel family, but he is by far the largest mischief-maker. He is very fond of playing tricks on his enemy—the blue jay. I have come upon the jay and the squirrel having a big racket over some acorns the squirrel had stolen. We sometimes read about the squirrel being a good provider for the winter. Now, this is not altogether true, as he sometimes runs short of nuts before spring. No matter how fine a crop the chestnuts are, or how thick the acorns lie on the ground, he always tries to steal from the jay or his cousin, the chipmunk, because he is a born thief. But the jay is as big a thief as the squirrel, so there is constant war between the two. The chipmunk generally digs the tunnel to his storehouse so small that the red squirrel cannot follow. All winter he sleeps in the hollow trunk of a beech tree on a bed of leaves.

Little brown bushy tail lived in a tree,
And mossy and snug was his nest.

In the spring when it is warm and the birds are nesting, he steals their eggs, and later, when the young birds have hatched, he becomes guilty of the crime of stealing and eating the young birds. I have seen him with a young robin in his mouth, pursued by a score or more of old birds, and get to the knot-hole in the old pine tree in safety. If you want to see a red squirrel, just go into the woods some day and sit down under a tree, and if there is a squirrel anywhere near, he will soon be in the tree over your head scolding and barking. In the winter, if his food supply runs short, he will come up to the corner after corn. The red squirrel makes a very good pet if caught young. I had one, a pet, that I got in a basswood tree in the woods. There were five in the nest, which was made of leaves. I have studied the ways of a good many of the little creatures of the woods, but I find the red squirrel the most interesting of all.

JACK GRAHAM (age 15)
Middlemiss, Ont.

This is a very interesting letter, Jack. I hope it will lead other Beavers to study nature more closely. Write again, won't you?

Our Letter Box.

Dear Puck and Beavers.—This is the first time I have written to the Beaver Circle, though my father has taken "The Farmer's Advocate" for a long time, and I have always read with interest the Beaver Circle, which I thought I should like to join. My father thinks "The Farmer's Advocate" an awfully nice paper, and so do I. I live on a farm about five miles from London; our farm is called "Kelvin Grove." I am very fond of animals; I have two canaries (a cock and a hen), called Dick and Jenny; also a dog, called Jip; a white Angora rabbit called Rab, and a little black-and-white calf called Dolly. Father gave her to me when she was quite tiny, and she knows my voice quite well, and always comes to me when I call her by her name. I am very fond of her.

I do not care for my dog much. She is a cringing little thing, and very small for a collie. We had a lovely dog called Jack, a thoroughbred collie. Oh, he was a beauty! He knew a lot of tricks, and was very good-tempered. But he ran away one night and never came back; we never heard what became of him.

I do not go to school; mother teaches me at home. She does not teach me out of the Readers, so I cannot tell you what Book I am in. I come from England, but as I was only four years old when we came out here, I can't remember it very much.

We have one dear old horse called Blackie. Mother and I drive her, as she is quiet, and does not mind the cars or automobiles. I have always wanted to have a cob or a horse, so that I could ride; I think it must be lovely. I will stop now, hoping this will escape the w-p. b.

HILDA M. HOOKE (age 12)
Kelvin Grove, Ont.

Surely, Hilda, it is not your doggie's fault if he is small and not pretty. Just try loving him all the more, because other people are not likely to. He will appreciate it.

Dear Puck and Beavers,—I have long been a silent reader of the Beaver Circle, and have been too timid to step in among you and write. I live in a little inland village six miles from any railroad. It has about one hundred inhabitants, the village, I mean. It boasts two departmental stores, two doctors, carriage shop, cheese factory, a new three-story seed building and chopper, blacksmith shop, undertaker, but I am glad to say we have no hotel. We also have natural gas and telephone. I am ten years of age, and expect to write for the Junior Fourth at

Easter holidays. I hope this will not be too long. GLADYS DENNIS,
Caistorville, Lincoln Co., Ont.

Dear Puck and Beavers All,—Forgive me if I have written so soon, but I could not keep from writing any longer, because I must tell you that I have finished reading my prize, "Tom Brown's School Days," and you don't know how interesting I found it.

My father has taken "The Farmer's Advocate" for quite a number of years, and says that he would not be without it, and we all think it is the best paper yet.

Now that the long winter evenings are upon us, I, like Grace Amey, also think that it would be nice to have some particular subject to study in the long evenings; I am sure that it would be interesting and instructive. Please think about it, won't you?

And why not have a pledge or something, for the Beavers to join, to protect the birds and other harmless wild creatures? Why, on Thanksgiving Day, I saw a crowd of boys with guns in their hands and sacks on their backs, coming home with trophies of their skill from the woods. This, I think, was very cruel. I don't see how they could feel happy when they think that they may have killed a mamma squirrel or chipmunk. To my mind it would have been more interesting to study these creatures.

To Vernon Augustine: I admire your Princess May, I feel sure, as much as any boy could, for I am fond of horses.

Now, I must close, hoping this will escape the ever-present monster, w-p. b., and if too long, dear Puck, just take your pencil and shorten it.

MARY WILLES (age 14),
Malcolm, Ont.

We take it for granted that the whole Beaver Circle is a society for the protection of animals, and for kindness to all living things.

In the spring, we intend taking up botany, so read up all you can on that subject during the long winter evenings.

Dear Puck and Beavers,—I have for a time been a silent reader of the interesting letters of the Beavers, so I now will endeavor to write a letter which I hope to see in print. I live on a farm about two miles from town. I like living on the farm very well, as there is lots of fun in the summer when we gather flowers and have picnics, and also in the winter, because there is lots of skating. There are two rivers on our farm. Last summer the school children made a raft which we had lots of fun with at noon hour. The name of our farm is "Glade Park." We have large patches of straw-

berries, which yield an abundant crop every year.

RUTH SPROAT (age 12, Book IV.),
Egmondville, Ont.

Dear Puck,—This is my second letter to the Beaver Circle. The first one found the w-p. b., but I hope this one misses it. I live on a farm about six miles from Milton. The Indian creek runs through our farm. I have twenty rabbits. I keep them in a hayloft. I have about half a mile to go to school. The other day we caught a squirrel with a broken leg. I put it in a little cage, but it soon died. Hope I will see this in print.

"GREY BIRD" (Class IV.),
Ash, Ont.

Dear Puck,—This is the first time I have written to the Beaver Circle, though I wrote once before when it was known as the Children's Corner. I am twelve years old, and am in the Senior Fourth class. I am a farmer's son, and live about two miles from the town of Paris, which the inhabitants call the prettiest town in Canada. It is situated in the county of Brant. It contains a number of churches, the names of which are: Roman Catholic, Church of England, Baptist, Presbyterian, Congregational, Methodist, and the Salvation Army has a barracks.

The Nith river joins the Grand in the town, and they furnish power for the Penman and other mills. There are four or five Penman mills here, and they give employment to hundreds of hands, mostly girls. The Penman Company have branches at St. George, Brantford, and Burford. Last year there was a new Central school built in town. Hoping this will escape the w-p. b., I remain,

ROBERT J. DEPEW (Book IV.),
Paris, Ont.

Beaver Circle Notes.

The following would like some of the Beavers to correspond with them: Irene McLean (age 12), Ridgeway, Ont.; Grant Haley (age 14), Springford, Ont.

Everton Smith has done very well to be in the Fourth Book at eleven. If he will write a longer letter, we shall be glad to find room for it—an interesting one, of course, Everton. . . . And Mary H. Bollert, who is also eleven, has a little niece. Don't you feel like congratulating her, girls? . . . Boyd Hammond is a very good writer, but he must send a longer and more interesting letter to see it in print.



Wellington at the Battle of Waterloo. (After the painting by John Schonberg.)

A competition. Prizes will be given for the best sketch on the famous Battle of Waterloo. Use your own words, and if you have occasion to make a quotation, be sure to use quotation marks. Send in your compositions so that they may reach this office not later than two weeks after the date upon which this paper is issued.

Unique Gift to Birds.

Everyone has seen birds and squirrels in the parks fed and coaxed with crumbs, nuts, and all such things, but a certain man who habituates Stuyvesant square, makes a unique gift to his little feathered friends. Nearly every day he passes through with a wad of cotton, and tears it up, scattering it bit by bit while the birds gather round him. Not a single piece is wasted. As the little pieces float through the air, the birds catch them and fly away, apparently delighted at the idea of free building materials.—New York Press.

A Game for Winter Parties.

A good game for a winter evening. Children's Amusement Book, is "Nuts in a Tumbler." To each of your guests give two tumblers or cups, in one of which are eight or ten nuts, and a pair of knitting needles. The game is to see which can take the nuts out of the one cup (with the needles) and put them into the other first,—the shorter the time allowed the more fun. The needles are not to be prodded into the nuts, but are to be used as tongs.

The Ingle Nook.

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

A Letter from Grandmother.

Dear Dame Durden,—Here is a new member craving a small corner in your charming Nook. I have often intended writing, but somehow the weeks and months and years slipped by—yes, years, for I have been a reader of "The Farmer's Advocate" since some of your members were wee tots in short skirts. How long is it since the Ingle Nook in its present form started? And, if I may make so bold to ask, who is your oldest member who still writes? How many of the members looked for a reappearance of "The Shades"? I did for one. Perhaps they met at the big W. I. convention in Toronto. Hasn't the papers been full of it, including the Ingle Nook! Without doubt it was a great gathering of women, but personally I don't take much interest in the Women's Institute. I think it is a great deal of work and worry carrying on an institute for very little, if any profit. I am sure you will agree with me, that farm women have not time to get up papers and such like, and then, after all the work and worry and discussion for those managing an Institute meeting, every single one will go home and do their own old way. I noticed one of the speakers at the convention, mentioned the old-time quilting, and that the Women's Institute had taken its place. I for one don't think so, and I often wish the old-time quilting bee or rag bee back. Everyone could go and have no care or anxiety that they would be put down to do something that was almost impossible, and then after all the worry of trying, only to be criticised and laughed at. For the younger women it may be all right, but I think for older women how much more pleasant to sit down and read such papers as "The Farmer's Advocate," "Home Journal," or a great many more I could name, and I think a great deal more benefit. Now, dear Dame Durden, don't be too severe on me. When everyone is praising up the Institute, it will be like a shower in August to hear something on the other side. I believe a great many women are like the little boy, they "Pay too much for their whistle." How much better and more reliable to write for our information to the Nook, and now, Dear Dame Durden, could you tell me what to do with a dark-gray crepe de chene dress that has got badly spotted? Would it shrink if I dyed it black? Also a few suggestions for a birthday party for about fifteen to a little grandchild of seven. The party was in February. Hoping I am not bothering you too much. GRANDMOTHER. [Toronto, Ont.]

Really I cannot say who is our oldest member. You see contributors seldom state their age. Am sorry you missed "The Shades." Perhaps they are but bidding their time,—eh?

So you do not like the Women's Institute? Well, you know, all people are not "built" alike, and I fancy it is well for this old world that they are not. Some like one thing, some another; some have talents of one kind, some of another,—and all goes to make the infinite variety that is, perhaps, necessary. As for the Women's Institute, I am sure that many women find a mental stimulus in getting up papers for it, and also that many have time to spend upon such papers. Those who have not should not try them. I do think, however, that it is a mistake for any society to make the preparation of papers compulsory. Some women are so constituted that they really cannot do anything in that way for public presentation, and I think that the great majority of the Women's Institute branches do not demand it. About criticism? Well, we all need more charity, don't we? And if we do see things to criticise in anything that is said or done in a meeting, perhaps we can learn to keep quiet about it, knowing that each speaker or writer has done her best. Perhaps, too, we can suggest better things without giving offence.

There is one thing that each member should guard against in herself—that is "bossiness"—you know what I mean.

When lighted are sure to delight the children. At each place, too, you might place a small doll made of tissue paper, which each child can keep as a souvenir. I do not think I should have a "birthday pie" (containing the birthday presents) if other children are to be invited in, as the wee tots might, naturally, be a bit covetous. The home presents, you see, could be given when the party is over, and all the little ones have gone home.

You need not be in the least afraid that such little tots will not have a good time. Let them play all they want, keeping them busy at such simple games as blindman's buff, or London bridge, or "hot beans, come to supper," and they will be quite happy. Children love the last. Show them some small object which you are going to hide in an "easy" place, then send them all out of the room. Place the object on a shelf, or on top of a door, or piano—anywhere that it can be plainly seen. Now go to the door and call, "Hot beans, come to supper!" All the children rush in and look about, and each must sit down just as soon as she sees the object. The one who is longest in finding the "beans" is loudly clapped, with great merriment. This game may be played over and over before children grow tired of it.

I wish country teachers could find time to teach children some of the "folk-dances" or "folk-games," which are now taught in nearly all city kindergartens. The children love them, and they are so

of our immigrants come from the northern lands; the Icelanders, though few in number, taking a foremost part in the upbuilding of Winnipeg and other Western cities. These peoples have transformed their long cold nights of winter into a real blessing,—a time of recreation of mind and spirit. All our arts and sciences are but outgrowths of effort to make life easier and pleasanter.

Many valuable scientific discoveries have come in leisure or play. A boy's kite-string was the basis of our telegraph system; an idly dreaming lad was inspired by the jumping teakettle lid to develop the magic power of steam; and it was when "his listless length at noontide did he stretch" that Newton had revealed to him the principle of gravitation, the knowledge of which is the foundation of much mechanical power.

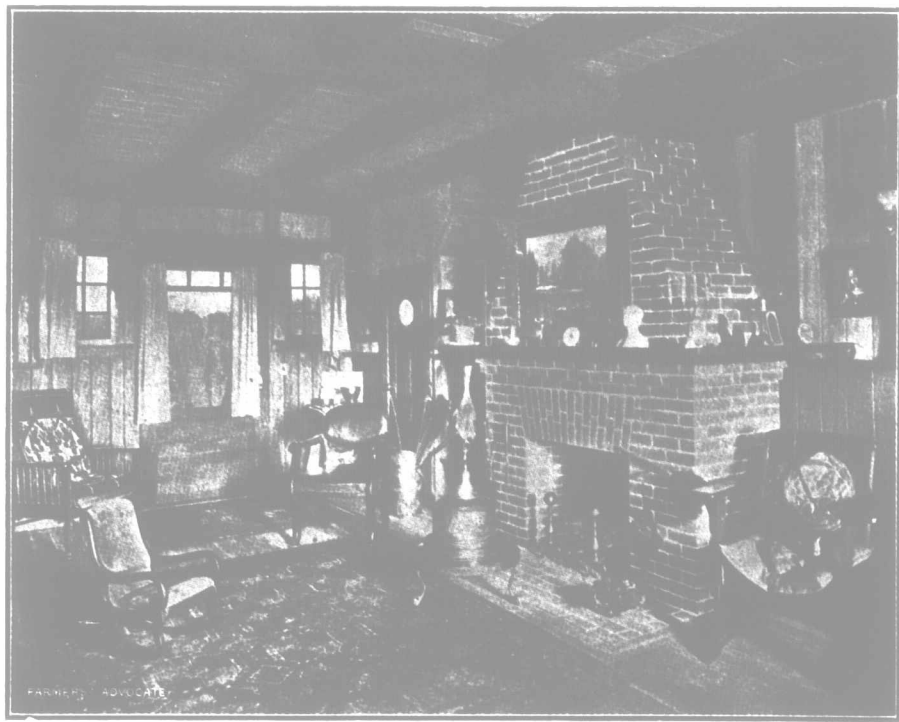
And how closely work and play are intertwined! There is no play so fascinating, nor education so valuable, as that which comes to a child watching and sharing the labor of its parents. A child of five years will, without weariness or complaint, travel miles every day with his father cultivating the fields, obtaining much instruction in natural science, and being care-free will delight in all the beauties of nature. Considering the ant and the bee, he becomes wise, so that when he goes to school he already has much store of knowledge ready for the teacher to help him classify and express. I am convinced that a healthy child of six years or upwards can be made entirely self-supporting on a farm—and that without being an object of pity either. I am sure many are, only they do not receive the credit for it.

At a meeting of the National Council of Women some time ago, much indignation was expressed at the fact that in Ontario many children under 14, or even 12 years, were employed in canning factories—shelling peas, etc.

As they were kept long hours in stifling hot rooms, this was deplorable indeed, but surely it was no worse than to be starving and homeless on the city streets, which sad alternative awaits many of them if they are prevented from working,—and I fail to see wherein they would be better or happier herded in dusty, crowded schoolrooms, in unsafe buildings, where they would be, perhaps, required to write their spelling fifty times, and be compelled to add long columns of figures until they attained the speed of skilled accountants before they would be permitted to read anything more interesting than cat, rat, hat. I once heard of a school teacher whose favorite discipline was to have culprits write "I am a bad boy" (or girl) and sign name, 10, 15 or 20 times. One day two boys broke some rule, and were sentenced to write their names 40 times; one was "Jo Day," the other "Ebenezer Morningstar."

The gratitude of millions of school children should go out to that queer, shabby, and poor old German, Froebel, the founder of the kindergarten. It is true he did not invent it—it has existed ever since a mother played with her child—but Froebel gave the principles expression, and got for them a hearing from men—men who make the laws and run the school boards.

Some generations back it was not uncommon for men to meet and earnestly discuss crops and live stock, leaving the training of their children to the "feebler intellects" of the women. How happy we of this glorious twentieth century, when such is no longer the case! Froebel taught that "there is nothing so important or profitable to the world as the training of the children," and also that "knowledge worth having comes with pleasure," and so ardently were his doctrines expounded that now, in the better schools and homes, we see children learning morals and manners, arts and sciences, through the happy medium of play. A Toronto newspaper reporter wrote up a comical description of the spectacle presented by 30 or 40 middle-aged school ma'ams learning new kindergarten plays, such as "How do you do, my partner? How are you to-day?" Well, we need more of that sort of teaching in all our schools. Many children do not appear to know how to say "Good morning." They don't mean to be rude, but all they know is "Hullo!" Once I was amused, yet saddened, watching a little girl—a nice,



A Handsome Brick Fireplace.

Each meeting of any society whatever should be friendly, warm, "human,"—everyone willing to give someone else a chance, everyone able at all to contribute to the general enjoyment or instruction willing, in some way, to contribute.

I wish you could come down to the big convention in Toronto next time. I am sure you would enjoy it.

By the way, why need the W. I. do away with the old quilting-bee or rag-bee? Anyone who wishes has still a chance to make one.

No, Grandmother, I do not feel like being "hard on you" at all. I fully realize that if you feel it too much to give papers, you should not be expected to give them; nor, indeed, to go to the meetings at all if you do not enjoy them.

About your dress: Crepe de chine is a material that dyes very well if it is well shrunken before it is made up. Personally, I am a little sceptical about home-dyeing, so I send all of my own things that must be re-colored to a good dyeing company. I am well aware, however, that many people are experts at home dyeing. If you attempt it, be sure to get a dye suited to the material. If it is all-wool crepe de chine, get "wool" dye. You know dyes are made especially now for cotton, wool, silk and wool and cotton mixtures, etc.

For your little grandchild's birthday party, be sure to have a birthday cake, iced and decorated prettily, with tiny candles fixed all round it, one for each year of her age. These candles may be bought all ready, white, pink or red, and

good for developing gracefulness, and for exercising all parts of the body.

Quilt Patterns—Spice Cake.

"Cook," Que., also sent a basket pattern, which arrived rather late. We shall be pleased to receive some of the other patterns she mentioned. She also contributes a recipe for spice cake, which she finds excellent: $\frac{1}{2}$ cup sugar, $\frac{1}{2}$ cup butter, $\frac{1}{2}$ cup molasses, $\frac{1}{2}$ cup milk (sour), $\frac{1}{2}$ teaspoon soda, 2 cups flour, 1 teaspoonful cassia, cloves, allspice.

Games and Home Amusements for Children.

[From a paper read last fall by Mrs. W. G. McBean, at a meeting of the Women's Institute, West Lambton.]

Winter has come, "with wailing winds," and lest the little ones in our care should too much "feel the sad influence of the hour," it becomes us to devise ways of amusement for the long winter. By a wise use of leisure, even more than by diligence in daily toil, are people advanced and exalted. Who that has read the beautiful poem, "The Cotter's Saturday Night," can doubt that to the evening leisure hour and the Sabbath day of rest Scotland owes her literary greatness. Sometimes it seems as if the Westerner's jest was sober truth when he said, "Canada will build the universities and Scotland will send the professors." The immigration officials of Western Canada assert that the very best

clever little one, who went to school every day. A friend of her father spoke to her, and began making inquiries about her papa. She answered ten consecutive questions with the single word, "Uh-huh," her manner being quite respectful all the time. Evidently she had never been told that the correct answer is "Yes, sir." The man did not appear to notice anything remarkable about it. Probably his own children also needed training in manners. I am old-fashioned enough to like to hear the "Sir" and "Ma'am" from children tacked upon the otherwise blunt "yes" and "no."

No doubt many of you are in possession of that charming little booklet of musical games, issued by the Bell Piano Co. "Surprised we see new beauties rise" in these old games of childhood's days. "Here we go round the mulberry bush" is a whole course of domestic science in a song. Our grandmothers played that, and what splendid housekeepers they became!

Who could preach a better temperance sermon than the song of "Old Dan Tucker," who lost everything—partner and supper—because he got drunk! If we can impress it upon every boy that decent people will "clear the way"—that is, they will have nothing to do with him if he "plays with the fire (water) and "kicks up a dust," the temperance victory will be won. "London Bridge" was always a favorite game with me. I used to suppose I liked the plaintive melody, but when I saw my own children playing it, it suddenly dawned upon my mind that "London Bridge" is politics. Each leader chooses a policy (or an article (of faith)), each tries to win a majority, and the tug-of-war represents the election. Watch a few players—big or little—and you will see those who like to get on the winning side, whether that is the policy they really like or not; also those who will pull loyally and manfully for their own side, though hopelessly outnumbered. Perhaps I should never have seen the allegory in the game had I not read Emerson's Essays, in one of which he states that large people are most intelligent, and recommends weighing instead of balloting—the heaviest side to win!

These are some old, old favorites in childish plays, but there are many other old ones equally good, and new ones are constantly being written and invented by educational leaders. Closely akin to these are the drill, calisthenic exercises, and the ordinary dances. Surely the most prudish cannot find objection to little girls dancing together, or boys drilling and stepping to music. Some kindergarten songs are lessons in anatomy and hygiene, worthy the attention of a medical expert.

For the little girl alone at home there is nothing equal to making and putting on and off doll's clothes. She will thereby learn the dressmaking trade, which is sure to be useful to her; and here let me put in a plea to allow the small girl to use the sewing machine;—otherwise how can Miss Dollie have a fashionable tailor-made costume?

I would not permit my oldest girl to use the sewing machine till she was quite grown up, fearing she might break it, but my little girl 8 years old does a great deal of work on the machine with infinite pleasure to herself and profit to me; and I'm acquainted with a small boy who was sure "What girls could do he could also," and insisting upon and obtaining his "Man's Rights," can throw the machine out of gear, and "make the wheel go round so you can't see it." Incidentally, he sews a good many carpet rags.

Do some of you recall the sarcastic speeches of the woman-hating old schoolmaster in "Adam Bede"? "I tell you there's not a thing under the sun that needs to be done at all, but a man will do better than a woman!" "I tell you a woman will bake you a pie every week of her life, and never come to see that the hotter the oven the shorter the time." "I tell you a woman will make your porridge every day for 20 years, and never think of measuring the proportion of milk and meal." "And as for cleanliness, my house is cleaner than any house on the common, though the half of them swarm with women!"

Would it not be well, therefore, to let the boys have a hand at the housework they may be so expert at? We may thereby evolve out of existence "the man

who marries to get a cheap cook," along with "the girl who marries to have a comfortable home of her own"; instead, we shall have independent and self-reliant boys and girls, "full summed in all their powers."

Little boys, as well as girls, enjoy cutting out and laying in the pans the cookies on baking day, and who so willing and clever as the small boy at keeping up the fire and watching that they do not burn? Children of seven or eight can, without any help from mother, make patty cakes and drop cakes,—and if they have "a party" with them afterwards, I'll guarantee the boy will not be behindhand at that game. If they can invite a few little friends to their own party, a few sheets of tissue paper will make "beautiful" doilies and other table decorations, besides keeping them busy and happy for hours. Every little girl should have a pair of round-pointed scissors, and there is then no danger of injury to any of the little workers, and a child's set of granite dishes will last for years, and cost very little. So children will do real work that seems play, and as they work they may sing:

"Sweeping and washing the dishes,
Bringing the wood from the shed,
Ironing, sewing and baking,
Helping to make up the bed,
Taking good care of the baby,
Watching her lest she should fall,
We little children are busy,—
Oh, there is work for us all."

Most parents earnestly desire that their children should advance rapidly at school. Well, there is one great help every parent may give, and that is to take an interest in the work. See what part of each text-book your child is studying, how much he gets over in a week, a month, a year. Many will declare that as they have never studied some of the subjects their children learn, they cannot help them in any way. Well, why not learn them now? If it is worth while for the children, it is for the grown-ups. Many eminent men have entered upon new studies in old age. But if you have not really time or inclination to actually learn these unknown sciences, you can imitate the philosophy of Rawdon Crawley, who, when little Rawdon would show him what part of the Latin grammar he was in, would look wise and say, "Stick to it, my boy; there's nothing like a good education—nothing." How can a child be expected to work hard at learning what his father perhaps seems to consider not worth having?

A few years ago in this village there occurred at the entrance "exams." what

seemed to me an amusing instance of the value of a father's interest in his child's school work. On the drawing paper was given the problem, "Draw a Hexagon." Out of nearly forty pupils only one knew what a hexagon is. They were all accustomed to drawing a regular six-sided figure, but did not know its name—except that one lucky boy, who was the son of a minister renowned throughout the Presbytery for his Greek and Latin learning. Probably he had seen the boy drawing the design, and had by chance used the name. The recollection would come like a flash of light in the examination hall. Since then all entrance pupils are carefully instructed in the meaning of "Hexagon," but the question never comes again.

Much harmless amusement and some knowledge of the planetary system may be given by a game of marbles. Have some big striped "alleys," and children will get as good an idea of how the earth turns on its axis as they will ever get by "Words of learned length and thundering sound."

Tops spinning are also interesting, as are many little mechanical toys. There are no fairy tales equal to the fairy tales of science. Natural laws are all fairy godmothers—happy are those wise children who obey them. I know many prosaic people shudder at the very name, "fairy tale." No doubt some fairy tales have neither interest, sense, or moral, but the same may be said of books, and even on occasional sermons. Who ever knew Santa Claus to bring anything but love and kindness to the heart of a child, and what countless numbers of children have delighted in and been benefited by Pilgrim's Progress, Hans Anderson, Esop, and Mother Goose!

I would not have any think that a child should be kept always at study or play. Every child has need of a certain amount of silence and "aloneness," the more sensitive and poetic the greater need thereof; and here lies a great objection to the modern school system. The tender feeling and refined fancy do not thrive on the "Schoolhouse playing ground," which, however, gives an excellent training for the business man or soldier.

An old proverb says, "An ounce of mother is worth a pound of clergy." Happy they with such a mother, who, as she walked with her little ones in quiet lane or meadow, would clasp their hands in hers, and sing to them Shepherd Psalm, or, as they sat by the evening fire, would show to them, "Behold how great a matter a little fire kindles"; who "Consecrated with hymns the simple tasks of her household."

The most noble professions are those

of doctor, minister and teacher, but a single generation of wise fathers and mothers would almost put these three classes out of business. They are so urgently needed, because so many parents cannot or will not do their duty by their own children.

It is impossible this afternoon to even mention the school games of large boys and girls, and the intellectual diversions of their evenings. These all have high training value, but Christmas will soon be here, and those of us who are debating what is best to do with the few dollars left of the proverbial "butter and egg" money would do well to remember that it takes many years for \$1.00 to double itself at bank interest, but if put into books and toys or sleighs for the children, it may bring forth some thirty, some sixty, and some one hundred fold, in health and happiness. I know nothing so effectual as the "Swish—walk back a mile"—of the toboggan slide for inducing reflection on the vanity of human pleasures.

"Behold the child, by kindly nature's law,
Pleased with a rattle, tickled with a straw;
Some noisier plaything gives his youth delight;
A little louder but as empty quite;
Scarfs, garters gold, amuse his ripper stage;
White beads and prayer books are the toys of age;
Pleased with this bauble still, as that before,
Till tired he sleeps, and life's poor play is over."

Young Girl Questions.

Dear Nookers,—If you will allow us space, we have a few questions which we would be very glad to have answered.

How long should girls of fourteen and girls of seventeen wear their skirts? Could you suggest nice ways for the same two girls to dress their hair? We have just a moderate quantity; neither very long nor very thick. Does plaid make anyone look stout? And if we are not taking up too much room in your precious Nook, could you tell us a few ways for country girls to earn pocket money in the winter time?

We want to thank you in advance for any help you may be able to give us, and wish you all every success.
ARRAH WANNAH AND REDWING,
Peterborough Co., Ont.

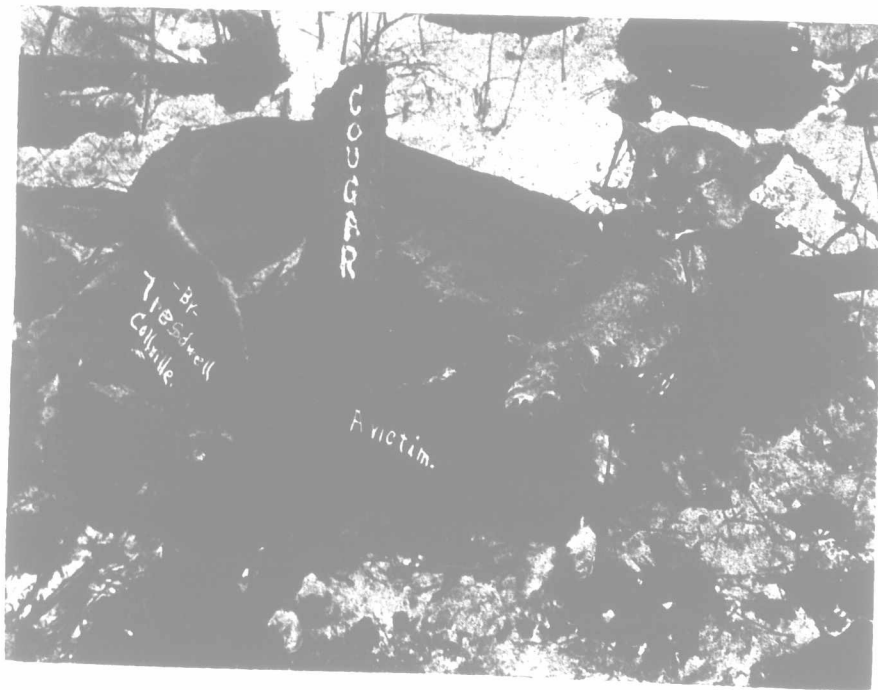
Girls of fourteen, if tall and mature for their age, should wear their skirts almost to their shoe-tops; if small and childlike, they may still wear them just nicely below the knee. Girls of seventeen should have them come to the shoe-tops. Girls of fourteen, and many of seventeen, in this city are at present wearing their hair parted, rolled softly at the sides, and caught at the back of the neck by a large ribbon bow, the end of the hair hanging in one long loose curl down the back. Some of the girls of seventeen do away with the bow and the curl, simply rolling the hair upward and inward at the back to form a sort of "bun" low at the back of the head. The front hair is almost invariably parted and rolled at the sides, a small hair pad being used if the hair is not thick enough to make a good roll.

Plaid has a tendency to make one look stout. I really do not know of any way by which country girls can earn pocket money in winter, except by taking good care of the chickens and learning to make A1 butter. Only A1 butter sells readily and brings a good price in the cities nowadays, you know. Making it is quite an art, too.

Re Furnishing.

Dear Dame Durden,—My sister and I intend furnishing our dining-room next spring, so would like your advice on some points.

The room is 25 feet long, 15 feet wide and 9 feet high. It faces south and west, having four large windows, 2 feet deep and 5 feet high, but not low enough for window seats. These reach to a cornice, 1 foot wide, of the same design as a narrow beading down the wall on each side of the windows. A skirting-board 3 feet high, painted fawn, runs around the whole room. The ceiling is native pine, of a nice rich yellow-brown tone. A walnut mantelpiece extends the length of a chimney-breast, 10½ feet.



Fight Between Dogs and a Cougar.

A homesteader, whose claim is situated about nine miles east of Colville, Wash., among the timbered hills, was awakened at 3 o'clock one morning last fall by what appeared to be a lively fight between his two dogs just outside. He rushed to find an unusually large cougar, who was proving to be more than a match for the two dogs. The man fired a hasty shot from a revolver, the first shot from the animal's left fore foot. This caused the cougar to retreat. The dog pursued him about forty rods, when he turned at bay and stretched one chester, and soon avenged the death of his fast-footed partner. The cougar was taken at this spot some hours later.

The Best Cough Syrup is Easily Made at Home.

Costs Little and Acts Quickly. Money Refunded If It Fails.

This recipe makes 16 ounces of cough syrup, saving about \$2, as compared with ordinary cough remedies. It stops obstinate coughs— even whooping cough—in a hurry, and is splendid for sore lungs, asthma, hoarseness, and other throat troubles.

Mix two cups of granulated sugar with one cup of warm water, and stir for 2 minutes. Put 2½ ounces of Pinex (fifty cents' worth) in a 16-oz. bottle, and add the Sugar Syrup. Take a teaspoonful every one, two or three hours. Tastes good.

This takes right hold of a cough, and gives almost instant relief. It stimulates the appetite and is slightly laxative—both excellent features.

Pinex, as perhaps you know, is the most valuable concentrated compound of Norway white pine extract, rich in guaiacol and the other natural healing pine elements.

No other preparation will do the work of Pinex in this recipe, although strained honey can be used instead of the sugar syrup, if desired.

Thousands of housewives in the United States and Canada now use this Pinex and Sugar Syrup recipe. The plan has often been imitated, but the old successful formula has never been equalled. Its low cost and quick results have made it immensely popular.

A guarantee of absolute satisfaction, or money promptly refunded, goes with this recipe. Your druggist has Pinex or will get it for you. If not, send to The Pinex Co., Toronto, Ontario.

A Thick Neck

This is the name usually given to Goitre, a most uncomfortable, unsightly and dangerous condition. A few years ago we were asked to prepare our home treatment for Goitre, a trial having been so satisfactory in one case. Since that time our

GOITRE SURE CURE

has been a winner. Letters of gratitude from those who have used it received frequently. A young man recently said: "My collar is a size smaller in three weeks, and my health is better." Internal and external treatment. Price \$2, express paid.

SUPERFLUOUS HAIR, Moles, Etc., permanently removed by our reliable treatment—Electrolysis—which is given only at our offices here. Satisfaction assured. Booklet "P" mailed free.

Hiscott Dermatological Institute, 61 College St., Toronto. Estab. 1892

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FAIRVIEW FARMS—We are offering

sons of Pontiac Korndyke, sire of the world's record Pontiac Clothilde DeKol 2nd, 37.20 lbs. butter in 7 days, and the sire of seven daughters that average 31.13 lbs. each in 7 days, equalled by no other sire living or dead. Also sons of Rag Apple Korndyke, whose dam, Pontiac Rag Apple, 31.62 lbs. butter in 7 days, is a full sister to the world's record cow, making these two full sisters' records average for the seven days 34.1 lbs. each, equalled by no other two full sisters of the breed. Also sons of Sir Johanna Kolartha Glad, whose dam and sire's dam average 32 lbs. each, which is higher than can be said of any other sire of the breed. Dams of many of these cows are high-record daughters of Pontiac Korndyke and Rag Apple Korndyke. Write me for full particulars and prices.

J. M. DOLLAR, Hevelton, St. Law. Co., N. Y.

PLEASE MENTION THE ADVOCATE.

which projects 3 feet into the room, leaving two shallow alcoves, each with a window facing west. Large walnut folding doors give entrance to the hall. So much for the room.

We intend having a table, china closet and sideboard built. What wood do you think would look best in our room? We want the table plain and solid, but do not quite understand just how it should be made. Should the legs be solid, and if so, should they taper toward the floor? How large should the legs be? In short, how should we describe it to the carpenter, who is rather given to ornate furniture?

The carpenter recommends building a cupboard for the extra leaves of the table. Would a china closet look well built on top of this cupboard? It would have to be in a corner. Would small leaded panes be in good taste? We have some old willow pattern, and would like to display it in the dining-room. Would a shelf have to be put up purposely for it? Does the sideboard have to be of the same wood as the table, and built after the same style? Would panelling look well over the walnut mantel, or would it have a patchy appearance, as the rest of the room is not done that way?

We have a long, solid, old-fashioned lounge that we wish to fit with a loose mattress and pillows. Would leather be the best?

What color ought the floor and window boards to be painted? Would the skirting-board look better painted another color than fawn? What sort of blinds and curtains, cushions and rug would look well in this room?

This is certainly quite a budget of questions, but as our house is old and quite historical, we do not wish to make any mistakes when good advice can be had.

MATRICULANT.

Welland Co., Ont.

Your sunny dining-room gives a fine chance for attractive furnishing. In the first place, I would have all of the woodwork in the room walnut, or stained like walnut, to match your large folding doors and mantel—oh, my dear, do you realize how fortunate you are to have those things of real walnut? And, of course, have everything a dull finish. No doubt your carpenter, who is "rather given to ornate furniture," will want a high gloss,—even varnish, mayhap! But put your foot down firmly. I do not see a high gloss anywhere in really nice houses now, and I have heard that, often, woodwork is waxed with a wax for the purpose and rubbed down to a smooth dull surface, to get a soft effect. I know one house, however, and a pretty one too, in which the woodwork was just stained, and left that way.

Now, the wall,—about the most important thing in the room, as it must be a background for everything: You cannot have a "warm" color, very well, as your room is so sunshiny, although a tobacco-brown would do very nicely. You might have it papered with a soft gray-green paper, perfectly or almost plain, with a deep landscape border (as your walls are high) in greens and browns, the browns harmonizing with the ceiling and the green matching the green paper below. At the lower edge of this frieze run a narrow wooden moulding stained walnut.

I do not think I should have a plate-rail, if I were you, as the room is so long, and horizontal lines would accent the length. But your willow ware will show beautifully in the cupboard, and then you could have some of the plates put upon the wall plaque-wise, by large hooks sold for the purpose. I once saw a small leaded-paned cupboard built above the mantel for fancy plates. It looked very well, but, personally, I like the mantel left free for plates, jars, candles, or whatever one chooses. A large picture placed above will give the necessary break to a plain wall. By the way, your blue china will look lovely with either a gray-green or a tobacco-brown wall. Do not get wall paper with a glossy finish. Be sure that it is dull, and soft in texture and coloring.

I presume you intend to have a built-on china closet, fastened to the wall. Usually they are built "into" the wall, and I have never seen them extend to the floor. Small diamond panes of clear glass would be charming. For the sideboard, why not have it buffet-fashion, with legs so that you can sweep under it easily? I don't think I should have

a cupboard built for the leaves of the extension table, unless in the kitchen. You don't want your room to look too "cupboardy."

Now, about that dining table: It must really depend upon your taste whether it has turned legs, or square ones of the "mission" order; but in any case they should be solid and practically plain. Ornateness is seldom handsome, and carving or fancywork of any kind on wood makes it so hard to dust. Square legs may taper or not, as you choose. The size must suit the size and solidity of the table. Of course it will be better to have all the furniture in the room of the same style, as far as possible.

Now about the curtains: How would you like gray-green scrim sash-length, stencilled with brown and darker green? Or cream or coffee-colored scrim stencilled with green and blue? Just a border all round, you know. You would, of course, have to put a valance across the top, stencilled to match. Five-cent factory cotton is now being used a great deal for curtains, and when prettily stencilled does not look at all factory-cottony. You can do the borders yourself, and so have very handsome curtains at very small expense, comparatively. If you do not understand the process fully, let me know, and I will put explicit directions once more in our columns for you.

I saw a very dainty set of curtains in a bedroom yesterday, with dresser cover and washstand cover to match. All were of pure white scrim—cotton scrim, I think, as the linen is usually cream,—and they were stencilled in blue and green.

You are lucky to have a long, old-fashioned lounge. Leather makes a good cover, and serviceable, if the leather is good, but it is rather expensive. Heavy furniture-rep would make a good covering for the mattress. For the cushion covers you could get some bur-lap, say in gray-green, and stencil or work it, say with yellow-browns, and even a touch of bright pumpkin-yellow; or a conventional design in darker green and blue would look very well. You would need a few cushions, with wash-covers, too, for head-rests. These might be of old blue denim, worked with white, or of shirting or gingham in green-and-white check, with the white squares worked with green in a sort of cross-stitch. The bur-lap cushions should be finished with cord and tassels, the gingham ones with frills of the material.

A rug with a small conventional pattern in which the leading tone is green, with, perhaps, touches of blues or browns, would look well in this room. If you choose, instead of the green and blue scheme, you might have gray throughout, with touches of green and pumpkin yellow. Gray is quite fashionable now for wall papers.

I hope this will be satisfactory.

Varying Foods in Winter.

"Beets! Beans! Carrots! Parsnips! —The same old thing over and over! No lettuce, no celery, no fresh fruit,—this year not even a few apples!" Now, isn't that a despairing wail? And yet, at this season of the year it is a wail that is going up from many a wise housewife who knows that people need to eat plenty in cold weather, and that variety is the salt of the earth to good appetites.

But there is a possibility of providing variety with even beets, beans, carrots and parsnips,—with, of course, the potatoes and meat that we seldom give especial thanks for, accepting them as we do the air, and the water, and many other of our good things.

Beets:—Don't eternally serve them "sliced in vinegar"—a method neither especially appetizing nor very wholesome,—indeed, vinegar is never wholesome, and is seldom used now by the best cooks. For a change cut up your boiled beets very fine, some day, mix with salad dressing made with lemon juice instead of vinegar, and serve as a salad. You may put in some nut-meats if you like. . . . Another day try serving them "as a vegetable," very hot, and dressed with melted butter and a squeeze of lemon juice. You may prepare the butter this way: Melt it with a little hot water—a teaspoonful to a tablespoon butter—beat in the lemon juice, add a

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will come out clean. Take the meat on a platter, chop very fine, seasoning with salt, pepper, and sage, summer savory, or "kitchen bouquet," which can be bought. Strain the broth, let it cool, and remove the fat. Now return broth and meat to a clean kettle and let boil a few minutes. Put into small bowls to harden. When cool, cover each bowl with about half an inch of melted lard, and your meat will keep for a long time. This is a great improvement over the carelessly-made variety.

To make a good beef pie, use the tougher round steak, or any of the poorer portions of the meat. Cut into cubes and brown well in smoking-hot dripping. You may fry an onion along with it. Shake in a tablespoon flour, and brown, then add cold water and bits of carrot and potato. Cover and let simmer very slowly for two hours. Now season, put on a top of biscuit dough and bake in the oven. For a change, you may bake biscuit separately, split them and serve around the edge of the platter on which the stew is placed. Or you may serve the stew with a border of boiled rice, to be eaten "as a vegetable."

Suet pudding is good in cold weather. Try this: $\frac{1}{2}$ lb. currants washed and dried, $\frac{1}{2}$ lb. raisins. Put in a bowl and mix with them 2 cups flour which has been sifted with $1\frac{1}{2}$ teaspoons baking powder. Now mix in 1 cup minced suet, 1 cup molasses, 2 beaten eggs. Mix well, and add just enough milk to make a thick batter. Put in a greased mould, shut tight, and steam four hours. Serve with sauce.

Sir Watkin Wynne Pudding.—Mix 1 cup minced suet with 4 cups bread crumbs. Beat 4 eggs with a cup sugar, and add 3 tablespoons any kind of jam or marmalade. Mix all, pour into a buttered mould, and steam $2\frac{1}{2}$ hours. Serve with this sauce: Cut the peel of one lemon into fine shreds, put them into a pan with a cup of water, and half a cup or more sugar. Simmer until the peel is tender, then pour over the pudding, leaving the shreds on top.

Lemon Pudding.—Now that eggs are becoming plentiful, try this: Beat the yolks of 4 eggs smooth with 2 large tablespoons granulated sugar, then stir in the juice and part of the grated rind of a large lemon; add 2 tablespoons boiling water, and cook over water, stirring constantly until the mixture is like thick cream. Beat the whites of the eggs to a stiff froth, then beat into them 2 tablespoons granulated sugar. When light, beat it into the hot yellow mixture, until the whole looks like a yellow puffball. Serve with crackers. This is enough for six persons, as it is a very rich pudding.

Frozen Whipped Cream.—Whip a pint of cream stiff, flavor and sweeten, and put into a small covered pail. Make a hole in the snow, put some salt in it, set the pail in, cover over with more snow, and leave for five hours. Serve in glasses with a preserved cherry on top of each.

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Oh, the good times are comin', no matter what they say;
 You kin hear 'em hummin', hummin', for a hundred miles away;
 They're a-sailin' through the summer an' a-fightin' through the freeze;
 A-ridin' down the rivers an' a-blowin' in the breeze!

Comin'
 A-hummin'—
 Like a regiment a-drummin';
 Lane has got a-turnin',
 Buttermilk's a-churnin',
 So keep your lamps a-burnin'
 Till the good times come!

Oh, the good times are comin', you can see 'em on the run,
 A-twinklin' in the dewdrops an' a-shinin' in the sun;
 A-dumpin' ever the daisies, an' babblin' in the brook,
 An' lookin' at a fellow like his sweetheart used to look!

Comin'
 A-hummin'—
 Like a regiment a-drummin'
 Lane has got a-turnin',
 Buttermilk's a-churnin',
 So keep your lamps a-burnin'
 Till the good times come!

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You buy will save you costly repairs and loss of cream.

Notice

The driving gear, see that it is square gear, strong and durable.

Avoid

Cheap worm gear drive in a fast-running machine like a cream separator; it soon wears, causing the bowl to wobble, hence poor skimming and loss of butter-fat.

Avoid

A bowl supported at one end only—it soon wobbles, gives poor skimming and loss of cream.

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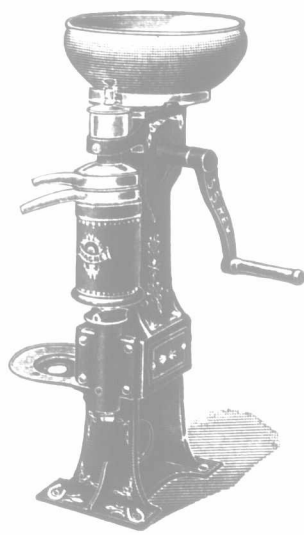
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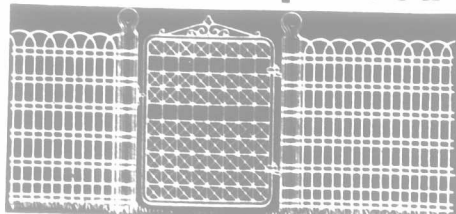
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dash of Cayenne and a little sugar, then mix quickly with the very hot beets, and serve at once.

Beans:—Do you ever try the Boston baked beans, for which recipes have been given in this column again and again? They are fine for supper—in fact, a regular cold-weather dish. Then, bean salad is good alone, or with cold meat. Simply mix boiled beans with good salad dressing and serve. . . Bean soup is delicious, and very nutritious. Boil them in a very little water and mash to a pulp; or, better, put them through a sieve or potato-ricer to remove skins. Mix the thick puree thus formed with hot milk, season, and serve. . . Bean croquettes may be made exactly like fish croquettes. Mix the boiled beans with mashed potato, season the whole with butter, pepper and salt, make into small cakes, brush over with melted butter and bake in a hot oven. You may fry them on top of the stove if you prefer.

Carrots:—Scrape, wash, cut in slices and boil in plenty of water, then drain off all but about a cupful of the water, add a teaspoonful of sugar and one of salt, and boil until all the water is evaporated. Now either serve at once, hot, with melted butter and a sprinkling of pepper, or mix with a hot cream sauce. . . Carrot pudding is almost as good as plum pudding. To make it, mix together 1 cup sugar, 1 cup minced suet, 1 cup raisins, 1 cup grated carrots (or beets), 1 cup grated potatoes, $1\frac{1}{2}$ cups flour, 1 teaspoon soda, a little salt. Steam or boil 3 hours, and serve with good pudding sauce.

Parsnips:—Parsnips should not always be served simply boiled. Try this way: Split each parsnip in four and boil, when just done drain, cover each piece with melted butter and bake until brown in a hot oven. Serve very hot. . . Parsnip croquettes are very nice. Boil and mash 4 or 5. Add 1 teaspoon flour, 1 beaten egg, season, make into cakes and fry in sizzling hot dripping.

Steak.—Beefsteak is a very common dish, yet how few people know how to cook it in order to retain the juices and bring out the full flavor. First have the steak cut in good thick slices,—thin slices are never good. Now have the pan smoking hot, and put in enough bits of suet to make a little grease. When these are crisped, put in the steak, and, almost instantly, turn it over, searing until every part has come into contact with the hot fat. By this, the juices will all be retained, instead of escaping and stewing the meat. Continue cooking very quickly until the outside is a rich brown and the inside tender, with a suspicion of pink at the center, then serve at once, very hot.—A very different dish from the ordinary cooked-herd variety.

Potted Meat.—Is very nice, for a change, for tea. . . Essance of the poor is tough parts of beef. Put it, bones and all, into a kettle, and boil until the bones

The Garden of a Com-muter's Wife.

(By Mabel Osgood Wright.)

CHAPTER VIII.—Continued.

"But I suppose you still expect to run wild as you did when a girl, never going in the kitchen except when you wanted something, and spending all your time either grubbing in the dirt or reading books that were not at all the thing for young women—I never wasted my time in such idling—or else listening to some imposter's tale over at the hospital, or crying over the funerals of ragged children that were much better dead. I hold three women sheer extravagance, and it's a woman's duty to surprise the kitchen at odd hours; otherwise, how find things amiss?"

"Not extravagance, Aunt Lot—co-operation, the only way in which twice two make five, and sometimes even six or seven; and as to finding things amiss, father always said we find what we look for; consequently, as I don't wish to find things amiss, I shall never look for trouble. If we had taken a little place of our own with a horse, cow and garden, we should have had to keep a maid and a man, should we not?"

"Certainly."

"And father must still have kept two maids and a man?"

"I suppose so."

"Then where is the extravagance of three women and two men when we live together?"

"That's not the way to look at it. When two families live in one house, it is that they may get on with less, else why do it?" she added triumphantly.

Poor Aunt Lot! she has always made of life a sort of combination bargain sale, a debit and credit account, with material loss and gain her only standard, at least until she married the Methodist minister; and then I verily believe the gain that tempted her was holding domestic authority over the motherless eight.

"I think you are mistaken," I said, swallowing my wrath; "that is the sort of family combination that fails and brings discredit upon the word. Co-operation is the having more of everything" (I was going to say "love," but I cannot speak that word before Aunt Lot), "home life, leisure, books, and all the material things to boot." I was hastening to explain, also, that Martha Corkle was an accident, a sort of after-thought in our plans, but before I could speak, Aunt Lot was again on the trail.

"The most objectionable feature about the house is that woman you've imported. She is a most offensive person. Last night when I went into the kitchen to chat with Delia and Eliza, and ask them how they were satisfied with the change of things—by the way, I think Eliza is greatly wounded and depressed at being set down from the cook's place after having done the marketing when your father was alone, to doing laundry and mere shift work, and having no say so, and then, too, Delia appears as if she'd been crying, and wouldn't talk about her wedding, which I don't think looks well—that woman, Martha Cockspar, stood all the time I was there and glowered at me as if I had intruded and had no right to go to the kitchen and speak to the help."

Martha Corkle comes from a class of society where the servants stand when the mistress visits the kitchen, which she never does to discuss the members of her family." I said emphatically. "She was quite right; you forgot yourself, and you were intruding. And now, if you please, we will talk of something else."

"I meant no offence, Barbara, I'm sure. I only thought it fair to warn you," she persisted. "You are young and impulsive, and have no experience. You never had any responsibility before in your life, and

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now what you'll do for jellies, preserves and canned things this winter I can't imagine. There is a very worthy woman in our town who puts up such things for sale. I might order some for you if you like. I suppose you'll be putting in a great many improvements—a hardwood floor in the best parlor, perhaps, to set off those new rugs and heavy plush curtains. You must have had a good many wedding presents I've never seen."

"Thank you, but I do not need preserves and such things. We all prefer fresh fruit and vegetables; out of the growing season something can always be bought at the market in town. I do not see why I should make any change, except little by little, to renew worn-out things; for father, as you see, has had a lovely

rosy paper put in this room and given me all the dear old mahogany that was mother's. New brass beds? No; I detest them. I like the feeling of being surrounded and having my toes tucked in, instead of poking them between the bars as a canary does his beak."

"As to hardwood floors, father has them under ban, for in a year he has traced two compound leg fractures, a broken arm, collar-bone, and an obstinate case of water on the knee, to polished floors. Besides, very soon there won't be any best parlor. It's to be our den, with plants and only the lightest of frilly muslins at the windows, and fresh matting under the rugs. In fact, I'm going to banish all carpets as soon as possible, and have thickly-lined matting and rugs everywhere."

"It's plain that you are set in your ways already, and don't wish my advice or value it," said Aunt Lot finally, rising, bonnet in hand, as if to go, quite in a huff, "but one thing more I must free my mind of. You'll find your husband will get many a hard cold coming up in those hot cars on stormy nights, besides losing business by never meeting people in the evening."

"Evan belongs to a club where he has a room that he can use when weather or necessity requires," I answered, boiling so internally that I am afraid my voice shook.

"Humph! I shouldn't have expected that he would have laid plans to deliberately stay away from you so soon."

"Stop, Aunt Lot! The plan was father's, and Evan only consented to

it because I urged it. No woman should try to live the country life if she is hysterical and makes her husband a train slave. Now, if you please, this talk must stop, and never be renewed. I hear Tim bringing round the horse."

As I went to help her with her bag and the packages containing her various belongings, I saw that she hung back and evidently had something further on her mind. To bring the really painful visit to an end, I asked her if I could do anything for her. She hesitated, and then whispered:

"Would you show me your new clothes? I've a great deal to fix over. I didn't buy a trousseau, as your Uncle Jabez was changing his charge at the time of our wedding. Have you anything tasteful in hats? Being at the head of a parish, and going to teas, cake-sales, funerals, and experience meetings, I'm called upon for quite a change."

The relief was almost too sudden. At last a subject that could not breed strife! I showed her my modest store—a London tailor suit, some dainty waists, an outing gown, an evening dress, a fur jacket, and the hats. Hats have always been one of my weaknesses. You can express so much in a hat; it often calls for flowers, and it requires very few stitches. Other sewing seems such a waste of time, the cutting of good cloth into more or less fantastic shapes, and then pricking it full of holes with a needle.

Poor soul! how longingly she handled the headgear, picked and puffed out the bows and flowers, and laid each down with a sigh, lingering over a girl's soft Alpine felt whose only decoration was a band and buckle. Aunt Lot is rather pretty outside, but in a faded sort of way, as if the fire of her constant and, as she thinks, righteous indignation had had its searing effect.

She hung over one puffy little toque of mouse-gray velvet with a big pink rose set squarely in front, murmuring her desire to try it on, as, if it became her, I might let her copy it, of course, in cheaper material! An inspiration! I immediately offered to give the thing to her, promising to add strings to make it bonnet-like, and to veil the brightness of the rose with black tulle—all the work of a few minutes.

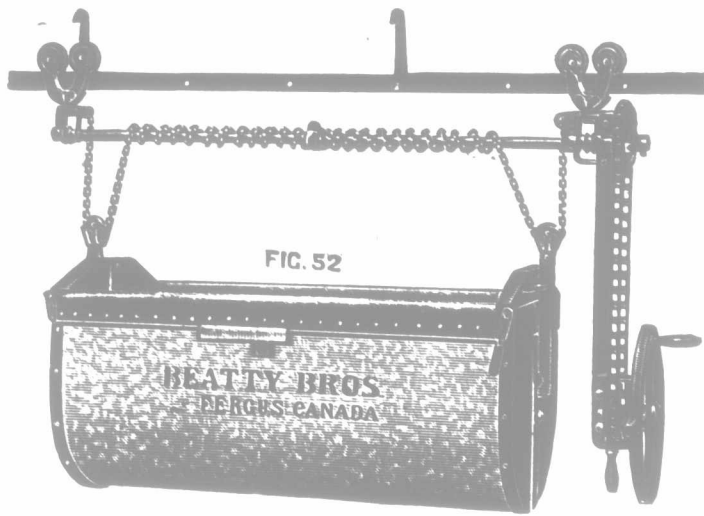
She accepted the gift with alacrity that bore a resemblance to pleasure, but resented the strings as too heating, also the hiding of the rose, saying that Jabez liked pink.

How strange it is that the only effort of so many well-meaning women to keep young is by dressing in the way that most accentuates their wrinkles, concealing the gray locks that soften the face, by either covering the forehead with a sort of scrambled-egg arrangement of brown curls, or mounting the horror of a fat artificial pompadour!

The doorstep was reached at last,

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and the packages stowed away in the rockaway; I breathed more freely, but no, there was a last word, and it was not mine. With her foot on the step, Aunt Lot turned to say:

"Now, Barbara, when Delia marries at Christmas, you'll doubtless have difficulty in getting a waitress. This commuting business, with early breakfast and late dinner, and the dishes to wash up at goodness-knows what hours, isn't popular, and you'll have trouble. But if you'll let me, I can get you a good young woman from our town. She is not very strong and she has never lived out, so she wouldn't expect high wages, and I might keep her a few weeks without pay to help me out and counsel and train her for you."

At this juncture, from some cause known only to Tim, the horse grew restive, and I had just sufficient self-control left to cross the piazza, enter the house, and close the door without banging it; then I flew up to the attic, followed by Bluff, who had been in hiding behind of the study sofa, as he had never forgiven Aunt Lot for once beating him with her parasol, his only whipping as far as I knew, when he had given her a too affectionate greeting on her return from making state calls.

Once in my retreat, I closed the door and lay on the old lounge panting; I remained there, saying things for quite a time, and finally recovered enough to take my outlook seat at the dormer window.

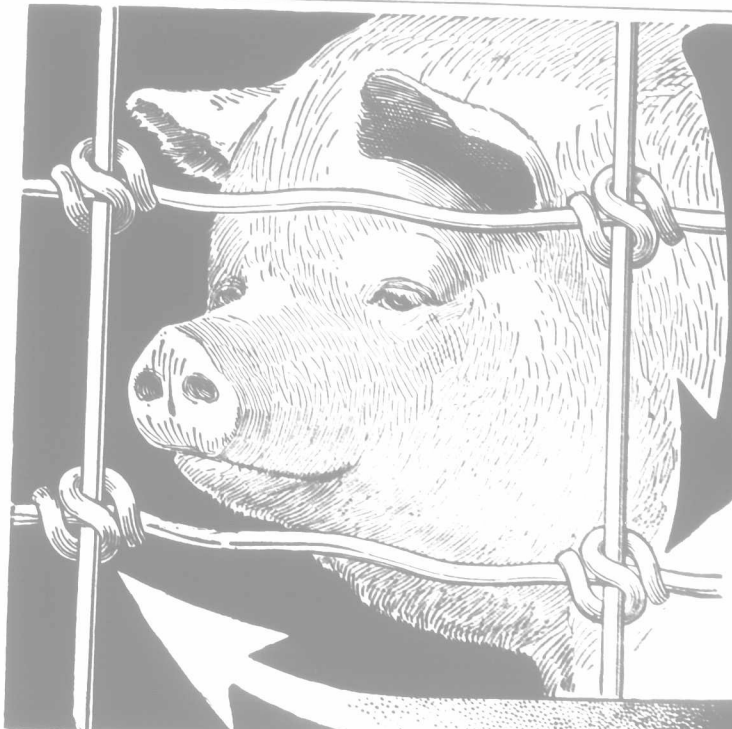
Oh, the soothing whisper of outdoors, even when the voice comes from leafless trees having a clearer, more incisive tone than that of dense leafage, and the pines and spruces come forward and keep up a full accompaniment like the lapping of waves that is unheard at an earlier season.

As I looked out, I realized a feature that I had never before noticed. The evergreens, so old that they had lost all Christmas-tree stiffness and taken easy attitudes, had been so planted that, as the elms and maples lost their leaves, they seemed to disappear into the draperies of these sturdy trees, and be replaced by them. So that on hill, grass slope, or flanking the walk, the furry green of white pines, or the fretwork of spruce and hemlock barred out winter desolation, while the living green, in the form of younger bird-sown seedlings of the old trees crosses the woody pasture until it blends with the sombre tone of the native red cedars that gather round the bars.

(To be continued.)

TRADE TOPIC.

ELLIMAN'S EMBROCATION, a famous English remedy for many ailments in horses and other farm stock, as also for many human complaints, and which may be obtained of all druggists throughout Canada, is advertised in this paper by Elliman, Sons & Co., Slough, England.



You can't argue with Mr. Pig

You know how dead-set a hog always is to get out of the field you put him in. You know how much time and bother it takes to replace broken rails and plug up breaks in the fence after you have turned your hogs

into pasture. You know how obstinate swine are—how hard it is to keep them where you want them. But do you know there is a fence made especially to do that very thing?—a fence that settles the argument with Mr. Pig.

"Ideal" Fence keeps hogs where they are put

This Heavy, Hog-Proof "Ideal" Woven Wire Fence has all the best of it with the pigs. Each "Ideal" lock grips the upright and cross wires in FIVE DIFFERENT PLACES—grips them so they simply CANNOT SLIP—and thus the hogs cannot move the uprights sideways, nor the cross wires either up or down. The uprights are all of large gauge No. 9 wire—HARD (not soft) wire, heavily galvanized, and all in one piece. The strongest hog cannot make the fence yield. He has got to stay where he is put, when you fence with "Ideal." For it is

The Strongest, Staunchest Fence Made

"Ideal" Fence is as strong as it looks—no small or soft wires in it, made wholly from HARD STEEL large gauge No. 9 wire, from top to bottom all the same. Drop us a card for neat folder and catalog telling of "Ideal" features and styles for every fence purpose. With it will come a sample "Ideal" lock. Don't buy fence till you see this. Address

THE MCGREGOR BANWELL FENCE COMPANY LIMITED WALKERVILLE ONTARIO CANADA

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"The Farmer's Advocate"
Fashions.



6261 Child's Apron, 2, 4 and 6 years



6283 Girl's Yoke Apron,
6 to 12 years.



6883 Fancy Waist,
34 to 40 bust.



6885 House Jacket,
34 to 44 bust.

Please order by number, giving age or measurement as required. Allow at least ten days in which to receive pattern. Price, ten cents per pattern. Address: Fashion Dept., "The Farmer's Advocate," London, Ont.

GOSSIP.

JERSEY BREEDERS' MEETING.

The annual meeting of the Canadian Jersey Cattle Club will be held in the Board room of the Toronto Street Railway Company, corner Church and King streets, Toronto, Thursday, February 9th, at 1.30 p. m.

The Board of Directors will meet at the Walker House, at 10.30 a. m., Thursday, February 9th.

The Directors will submit a new Constitution and By-laws which they have compiled, and hope there will be a thorough discussion.

Convention rates on all railways.
D. Duncan, President; R. Reid, Secretary.

LAST CALL FOR LINTON'S SALE.

The Gossip notes on page 74, in our January 12th issue, and on page 123 in our January 19th issue, give interesting information regarding the breeding of the old-established Shorthorn herd of William Linton, of Aurora, Ont., to be dispersed by auction, on Wednesday, February 1st, at the farm on Yonge street, north of Toronto, on the Metropolitan electric railway. These cattle are descendants of the renowned Sheriff Hutton herd of Mr. Linton's father, founded over eighty years ago, which produced as many Royal winners and sires of Royal winners as any other in its day, and supplied herd-headers to many of the leading herds in England and Scotland. These cattle will be sold in ordinary breeding condition, with no special fitting, and good bargains will certainly be available. The terms of sale are easy, and the place easily reached from all directions. Note the date, and plan to be present.

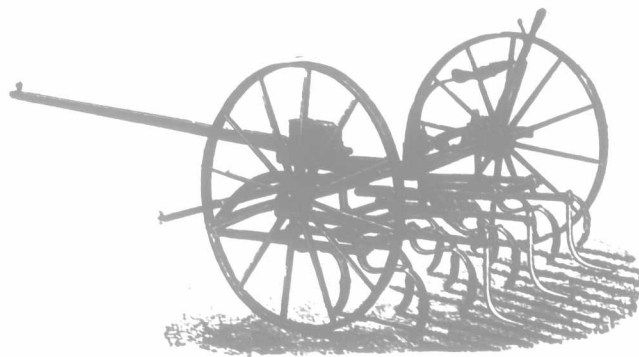
F. R. SHORE'S SHORTHORN SALE.

In this day, when feeding and dairy cattle alike are at prices never known before, it would seem opportune to consider earnestly the situation. Farm lands, labor, and every line on which production is based, is now at high tide, and it behooves all interested to be equipped with farm stock which will give the best results for the feed consumed. At the above sale, to take place February 2nd, intending purchasers will find cattle that have been bred for the purposes for which farm stock are kept, viz.: beef and milk. They are bred in the lines that the tenant farmers of the Old Country are now paying high prices for. In this herd, early-maturing and natural flesh have been the aim, while the milking idea of the question has always been considered, therefore, the sires used in the herd have been selected from deep-milking dams, with the result that the cows give a liberal supply, many of the heifers now in milk being especially good. The terms are eight months' credit. The sale is easily reached by London and St. Thomas traction cars, which run every hour, and conveyances will be at Glendale, three miles south of London, the morning of the sale.

BE SURE AND SEE THE PETER HAMILTON AGENT.

Now is the time to prepare for a rich harvest, by buying the best seeding machinery.

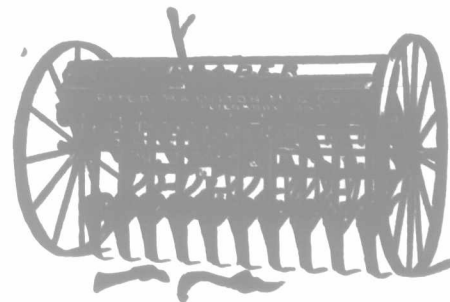
THE HAMILTON LINE HAS NO SUPERIOR



Our Elastic Cultivator is built for service—will outlast any other make—is easy to operate, and is light of draft.

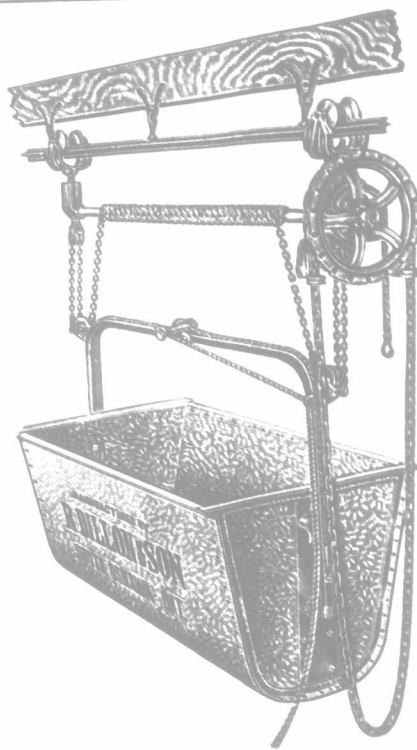
Our "Leader" Drill is built along the right lines. Is durable, easy to operate and accurate in sowing. Equipped with either hoe or disc.

Write to-day for our Catalogue F, which describes these two machines.



The Peter Hamilton Co.,
Limited,
PETERBOROUGH, ONTARIO.

HE HAS SOMETHING SPECIAL TO OFFER YOU.

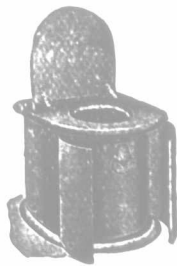


BY USING

Dillon's
No. 2
Litter
Carrier

You can get your stable work done in a quarter the usual time. Time saved is money made. Make friends by selling it. Made happy by buying it. For particulars write:

R. DILLON & SON
South Oshawa,
Ontario.



Red Cross Chemical Closets

No Water Required or expensive plumbing.
Easily Installed anywhere in your home.
Inexpensive to Operate and Positively Guaranteed.
Odorless and Sanitary.
Write for catalogue E.

Red Cross Sanitary Appliance Company
(Inventors and Sole Manufacturers), GRIMSBY, ONT.

NATIONAL SHEEP RECORDS.

Part 1, of Volume 1, of the Canadian National Records for Sheep, published by the Dominion Sheep-breeders' Association, compiled and edited in the office of the Canadian National Records, has been

issued from Ottawa. It contains a list of officers and members of the Dominion Sheep-breeders' Association, and of breeders and owners; also pedigree records of Shropshire sheep, numbering from 1 to 4565.

HURST SPRAYERS ON FREE TRIAL

**NO-MONEY-IN-ADVANCE
PAY AFTER IT HAS PAID
FOR ITSELF**

LET US SEND YOU ANY OF THESE SPRAYERS—to try for 10 days, then if you buy, you can pay us cash or we'll wait till you sell your crop, then you can pay us out of the "extra profit." We pay freight. Wholesale dealers' prices.



Man-Power Potato and Orchard Sprayer.
Sprays "anything"—potatoes or truck, 4 rows at a time. Also first-class tree sprayer. Vapor spray prevents blight, bugs, scab and rot from cutting your crop in half. High pressure from big wheel. Pushes easy. Spray arms adjust to any width or height of row. Cheap in price, light, strong and durable. GUARANTEED FOR FIVE FULL YEARS. Needs not send-a-cent to get it "on trial." You can get one free if you are first in your locality. Write today.

Horse-Power Potato and Orchard Sprayer.
For big growers. Most powerful machine made. 60 to 100 gallon tank for one or two horses. Steel axle. One-piece-heavy-angle-iron frame, cypress wood tank with adjustable round iron hoops. Metal wheels. "Adjustable" spray arms and nozzles. Brass ball-valves, plunger, strainer, etc. Big pump gives vapor spray. War-anted for five years. Try this machine at our expense with "your money in your pocket." See free offer below. Write today.

Fits-All Barrel Sprayer.
Fits any barrel or tank. High pressure, perfect agitation, easy to operate. Brass ball-valves, plunger, strainer, etc. Auto-matic strainer. No "cup leathers or rub-ber" about any of our sprayers. Furn-ished plain, mounted on barrel, or on wheels as shown. Five-year guarantee. It don't cost you "a cent" to try it in your orchard. Get one free. See below. Write today.

FREE—Get a sprayer FREE.—After you have tried the sprayer and are satisfied that it is just as we recommend it, send us a list of the names of your neighbors and we will write them and quote them price and have them call and see your machine work, and for every Fits-ALL Sprayer we sell from your list we will credit you with \$2.00 or send you check if you have paid cash.
For every Man-Power Potato and Orchard Sprayer we sell we will credit you with \$3.50 or send check.
For every Horse-Power Potato and Orchard Sprayer we sell we will credit you \$5.00 or send check.
We do all corresponding and calling. All you need do is to show the sprayer. Many have paid for their sprayer in this way. This offer is good for only the first order in each locality. Don't delay. Send the coupon or post card NOW.

COUPON — Fill Out and send to-day This Coupon will not appear again.
THE ONTARIO SEED CO., Successors, 138 King Street, Waterloo, Ontario
Send me your Catalogue, Spraying Guide, and "Special offer" on the sprayer marked with an X below.
Man-Power Potato and Orchard Sprayer.
Horse-Power Potato and Orchard Sprayer.
Fits-All Barrel Sprayer.
NAME.....
ADDRESS.....

THE ONTARIO SEED COMPANY, SUCCESSORS, 138 KING STREET, WATERLOO, ONTARIO

QUESTIONS AND ANSWERS.

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

Veterinary.

FATALITY IN PIGS—INDIGESTION.

1. I noticed in your issue of January 11th, treatment recommended for infectious bronchitis in pigs. I had two litters of twelve and eight pigs last November. Eighteen of them died from this trouble, and the remaining two are not doing well. I have burned sulphur in the pen. If fresh stock be put in the pens, is there danger of infection?
2. I have a horse that has been subject to indigestion since a colt. He has attacks frequently; sometimes every day. If allowed to drink before meals, or when warm, he is almost sure to have an attack, and sometimes suffers without apparent cause.
R. A. Y.

Ans.—1. There is danger of infection unless the premises be thoroughly disinfected. Wash thoroughly with a hot five-per-cent. solution of carbolic acid. In a few days, give a thorough coat of hot lime-wash, with five per cent. carbolic acid, and, when dry, it should be safe to introduce fresh stock.
2. He has congenitally weak digestive organs. Avoid conditions known to cause attacks. Feed in small quantities, and be sure that all food given is of first-class quality. Feed ginger three times daily on grain ration. Commence with teaspoonful doses, and gradually increase to the full of a dessertspoon. V

Miscellaneous.

CLYDESDALE REGISTRATION.
I have a filly from an imported Clydesdale horse with three registered crosses and a registered Clydesdale mare. Would you please tell me whether this filly could be registered?
W. D. E.
Ans.—Yes.

GOSSIP.

The Metal Shingle & Siding Co., of Preston, Ont., whose advertisement appears elsewhere in this issue, have a branch office in Montreal for the convenience of the trade in that section of country.

HOLSTEIN-BREEDERS' BANQUET.
J. W. Richardson, Secretary Banquet Committee Canadian Holstein-Friesian Association, writes: When announcing the date, February 9th, of annual meeting of Canadian Holstein-Friesian Association, please mention that banquet will be held on February 8th, at Nasmith Co parlors, 150 Bay street, Toronto, at 6.30 p. m., evening prior to annual meeting. C. W. Wood, President of Holstein-Friesian Association of America, and Prof. H. H. Dean, will be present and deliver addresses.

TRADE TOPIC.

FINE MILK BUSINESS FOR SALE.
A flourishing milk business, with monthly receipts of nine hundred to a thousand dollars, a herd of 40 number-one tuberculin-tested cows and complete up-to-date equipment for delivery, is offered for sale in our advertising columns, by Jos. H. Marshall, of London, Ont. With the business goes a five-year lease of Mr. Marshall's very fine farm just north of the city. This farm and dairy were very highly commended in the Ontario Milk Commission's report, and an illustrated description also appeared in "The Farmer's Advocate" of March 17th, 1910. Only a select purchaser and tenant will be considered, and no proposition will be entertained unless parties are in a position to pay 50 per cent of purchase money down. It is a fine opening for the right man. For particulars, address Mr. Marshall, at London.

POULTRY AND EGGS

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

CHOICE BARRED ROCK COCKERELS for sale, from one to five dollars. Nelson Smith, Jerseyville, Ontario.

FOR SALE—Cocks and Cockerels, R.-O. Rhode Island Reds, Buff Orpingtons, S.-L. Wyandottes, W. Wyandottes, R.-C. Brown Leghorns, S.-C. White Leghorns. Prices, \$1.50 to \$3.00. Also a few choice Leghorn Pullets. W. H. Farber, Dungannon Poultry-yards, Cobourg.

FEATHERS WANTED—We buy Goose, Duck, Chicken, and Turkey Feathers; highest prices paid. Write for price-list. The Imperial Waste & Metal Co., Queen St., Montreal.

FOR SALE—Bronze Turkeys, won first, second and third prizes; highest prices paid. Write for price-list. The Imperial Waste & Metal Co., Queen St., Montreal.

FOR SALE—A few choice S.-C. Red and S.-G. Dorking cockerels, at \$2.00 each; also Banded Rock and Dorking pullets, at \$1.00 each. C. Hutton, Brampton, Ontario.

FOR SALE—S.-C. Brown Leghorn cockerels, \$1.25 each. David A. Ashworth, Maple Grove, Ontario.

RHODE ISLAND REDS of high quality; also Single-comb Brown Leghorns (Becker's strain). W. J. Bunn, Spruce Grove Poultry-yards, Birr, Ontario.

WANTED—New-laid Eggs, Butter and Poultry. I guarantee the highest market prices. W. J. Falle, Prince Albert Ave., Westmount, Montreal, Que.

45 VARIETIES Standard-bred Fancy Poultry. Handsome 1911 catalogue free. S. A. Hummel, Box 23, Freeport, Ill.

REAL ESTATE.

218 acres in Brant County, 2 1/2 miles from Paris, a choice clay loam, fine wheat land, 200 acres cultivated, 18 acres pasture, with spring water; 5,000 cedar posts; 75 acres into wheat; 70 acres plowed; good large stone house, cellar; 3 barns, one stone basement. Handy to town to sell milk to retailers at \$1.40 per 100 lbs. year round, and come and get it. This farm sold some time ago for \$14,500 with less buildings; to-day, \$12,000. A small farm in exchange.

100 acres, good clay loam, Oxford County, 9 miles from Ingersoll, on a main travelled road, fine neighborhood, in West Zorra Township, 4 miles from Entree, nearly all cultivated, some good timber, \$3,000 under whole house, furnace, 2 barns, 35x60 and 30x50, no basements. Price, \$7,500; easy terms. Could take small farms in exchange for larger farms.

R. WAITE,
Box 328, Oxford St., Ingersoll, Ont.
OF ALL SIZES AND QUANTITIES FOR SALE BY THE FARMER.
For price and particulars write
VIENNA BRICK AND TILE YARD
Vienna, Ontario

DRAIN TILE

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 each figure for two words. Names and addresses are counted. Cash must always accompany the order. No advertisement inserted for less than 50 cents.

A CAPABLE and reliable farm hand desires yearly engagement. Please state kind of farm and wages. Alfred Smith, New Sarum, Ontario.

EXPERIENCED Scotchman, married, wishes situation as farm manager. Can furnish references. A. Grant, St. Helen's, Ontario.

FOR SALE—Iron, Pipe, Pulleys, Belting, Rails, Chains, Wire Fencing, Iron Posts, etc.; all sizes very cheap. Send for list, stating what you need. Agents wanted; good commission. The Imperial Waste & Metal Co., Queen St., Montreal.

MEN WANTED, age 18-35, for firemen, \$100 monthly, and brakemen, \$80, on all Canadian railroads. Experience unnecessary; no strike. Positions guaranteed competent men. Promotion. Railroad Employing Headquarters—over 400 men sent to positions monthly. State age; send stamp. Railway Association, Dept. 645, 227 Monroe Street, Brooklyn, N.Y.

O. A. C. NO. 21 SEED BARLEY—Another grand lot now ready. I filled 160 orders last two seasons, and had no complaints. One seed dealer in Guelph last year sent a fourth order for 50 bushels, at \$1 per bushel. Present price, \$1.00 per bushel, l.o.b. Hensall; 16-oz. cotton bags, 25c. Jno. Elder, Hensall, Ont., Huron Co.

SCOTCHMAN, age 27, married, wishes situation in Clydesdale Stud; has had good experience. R. Peck, Hotel Gray, Eastern Ave., Toronto.

VANCOUVER ISLAND offers sunny, mild climate; good profits for ambitious men with small capital in business, professional, fruit-growing, poultry, farming, manufacturing, lands, timber, mining, railroads, navigation, fisheries, new towns; no thunder storms, no mosquitoes, no malaria. For authentic information, free booklets, write Vancouver Island Development League, Room A 102, Broughton St., Vancouver, B.C.

WANTED—A thoroughly capable manager for large mixed farm—fruit, cattle and grain. Good wages, yearly engagement. Dairy experience preferred. References required. Apply: Dr. Merritt, St. Catharines.

The Delhi Tannery Wanted—2,000 hides to tan for robes, coats, etc. All kinds of hides, skins and furs dressed soft and pliable. Deerskin for buck, or with the hair on. Send them to me and have them dressed right. B. F. Bell, Delhi, Ont.

SHOEMAKER'S BOOK on POULTRY
and Almanac for 1911 has 224 pages with many colored plates of fowl true to life. It tells all about chickens, their prices, their uses, diseases and remedies. All about incubators, their prices and their operation. All about poultry houses and how to build them. It is a very complete encyclopedia of chickendom. You need it. Only 15c. C. C. SHOEMAKER, Box 920, Freeport, Ill.

FARM LOANS
At 5 1/2% for term of five years, in large or small amounts. Half-yearly repayments if desired. Satisfaction assured. No delay. A. L. MASSEY & CO., 10 Wellington St., East, Toronto.

DO YOU KNOW
THAT WORN-OUT LANDS MAY BE MADE PRODUCTIVE AND PROFITABLE BY THE JUDICIOUS USE OF THE RIGHT KIND OF FERTILIZER?
NOW IF YOU HAVE A PIECE OF LAND THAT WON'T GROW ANYTHING BUT WEEDS, TALK WITH US ABOUT IT AND LET US SUGGEST THE RIGHT FERTILIZER.
WE FEEL VERY SURE THAT WE CAN SHOW YOU HOW TO USE FERTILIZERS WITHOUT GREAT EXPENSE SO YOUR LAND WILL PAY CONSULT US FREELY IT IS OUR BUSINESS TO KNOW ENQUIRIES FREELY ANSWERED AGENTS WANTED FOR TERRITORY NOT TAKEN UP THE W.A. FREEMAN CO. LIMITED HAMILTON ONTARIO

The Tuberculin-tested Herd of the Cedar Terrace Dairy

Consisting of 40 A1 cows, horses and outfits for delivery purposes, full stock of dairy requirements, with which will go the goodwill of our business, and five-year lease of the farm, in high cultivation, fifteen acres alfalfa. This is one of the best private dairies in Western Ontario. The average monthly receipts, nine hundred to one thousand dollars. Dairy, stone and cement, six-horse boiler, bottles and can washers, with sterilizing attachments; abundance of running spring water. Specially since July last, verified milk under inspection of the London Medical Milk Commission, as yet the only dairy in the district inspected, being close to city, and our product goes direct from farm to consumer. No proposition to purchase entertained unless parties are in position to pay fifty per cent of purchase money. Immediate possession. Inspection of herd and premises by appointment only. Further particulars, Joseph H. Marshall, London, Canada.

STRAWBERRIES.

I have three promising new varieties, Gill, Golden Gate and Fendall, \$1.00 per hundred, coming various of recent introduction, 3 W's. Also the old reliable, Senator, Dindag, W. J. Bunn, Stevens' Champion and Verrie, and many others. \$1.00 cents per hundred, \$1.00 per thousand. Send for catalogue and price list. C. P. NEWMAN, Box 51, Ludlow Falls, Que.

Master, I see you've got a horse shoe up there. Pat, I thought you didn't believe in that superstition.
Pat, Sure, an' I don't, see. But I have heard that there's a don't believe in it gets the best of it.

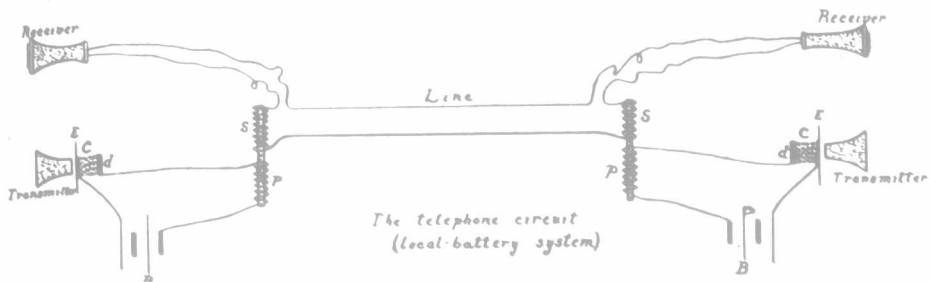
QUESTIONS AND ANSWERS.
Miscellaneous.

LOCAL TELEPHONE BATTERY.

In a rural telephone company, where there is no central, and the whole line is in communication at the same time, and the batteries in a certain instrument become spent, do they draw electrical power from all the other batteries on the line?
W. D.

same vibration as the diaphragm, E, in the transmitter. The vibration of the diaphragm sets the air in vibration, and this in turn sets the drum of the ear in vibration, which gives the sensation of sound.

Thus you will see that the battery current never passes outside your instrument—it is the induced current which travels along the line to the receiver at the other station, and consequently an exhausted battery cannot draw from the others on the line.
WM. H. DAY.



Ans.—This question can be answered by a single "No," but it may not be amiss to explain briefly the reason for this answer. A drawing will aid in understanding the answer. The figure shows two telephone stations on a rural line without any central. Each instrument consists of two parts, a transmitter and a receiver. Perhaps you have looked into the mouthpiece of your telephone some time and wondered what was inside. You noticed something dark in color. If you were to test this with your knife, you would find that it was a metal; as a matter of fact, it is a thin sheet of iron, called a diaphragm, in describing the telephone. E in the figure represents the diaphragm. Just back of the diaphragm there is a little chamber containing powdered carbon. C represents the carbon chamber. The back wall of this carbon chamber is another metal plate, D. B is the battery. Note that one side of the battery is connected to the diaphragm, E, and the other side to the back plate, D, but you will observe that the wire leading to D is coiled at P. The bar which runs through that coil is a piece of soft iron. The wire does not touch the core, but is insulated. You will note that there is another coil, S, around the other end of the soft bar. This coil does not touch the core either. You will see, therefore, that the battery wire has no connection with the line wires, and therefore one battery cannot "draw" from another.

But you ask "if the transmitter and battery wire has no connection with the line wires, how does the sound pass from the transmitter to the receiver?" In this way: when you speak into the mouthpiece, the sound makes the diaphragm, E, vibrate. As it does so, it alternately compresses and loosens the carbon dust. When the carbon is compressed, the resistance is lessened and the current increased, but when the carbon is loosened the current meets more resistance and is therefore diminished. Now, this lessening and increasing of the current changes the magnetism of the soft iron core in the coils. With a weak current, the bar is a weak magnet; with a strong current, it is a strong magnet. Now, this change in magnetism in the core INDUCES a current in the coil, S, and this induced current passes along the line to both receivers. Now, if you take the ear-piece off your receiver, you will find a diaphragm which you can lift off, just the same as the diaphragm, E, in the transmitter. As you lift off the diaphragm note that there is an attraction trying to hold it there. It is strong enough to pick up the diaphragm just as a "loaded" knife will pick up an iron pin.

When you have lifted the diaphragm off, you will see the two ends of a horseshoe magnet, and you will notice there is a coil of wire around each. These coils are connected with each other and with the line wire which goes into your receiver. Now, the induced current mentioned, passing through the coils, varies the magnetism of the horseshoe magnet in the receiver. The stronger the current the greater the attraction the magnet has on the diaphragm, and the weaker the current the less the attraction. Thus the varying current sets the diaphragm in the receiver vibrating with just the

ROUP IN TURKEYS.

Have a turkey hen that has a swelling under each eye; seems smart and hearty, but is handicapped to see to eat on account of the swellings.
W. J. C.

Ans.—It is very unsatisfactory attempting to diagnose these poultry diseases with the scant information usually supplied. The one symptom given is an indication of roup, which causes a swelling under the eye or between the eye and nostril, no other symptoms being usually noticeable. The bird may eat and live for a long time, thus making it all the more dangerous, for the disease is contagious. A leading turkey-breeder says: "I do not believe there is any sure cure for it, and I believe I have saved myself many a turkey by killing and burying the few that have been afflicted in my flock as soon as it made its appearance." We doubt whether we can give better advice. If in doubt whether the disease is roup or not, separate the ailing bird from the rest of the flock completely until you have had a chance to make sure.

Veterinary.

BOG SPAVIN AND THOROUGHPIN.

Clydesdale colt, eight months old, is fed about 8 lbs. oat chop and bran daily, one-third of the mixture being bran, and is turned out to exercise every second day. The other day I noticed it slip and fall while running and playing, and shortly afterwards I noticed what appears to be a bog spavin and a thoroughpin.

1. Was it the high feeding or the slip that caused the puffs?
2. Would you advise blistering, or will the puffs disappear without treatment?

Ans.—1. The trouble was, doubtless, caused by the slip and fall. The grain ration was probably a little strong for a colt that got exercise only every second day, and would have a tendency to predispose to trouble, but the slip was certainly the exciting cause.

2. In many cases a spontaneous cure occurs, but blistering will hasten absorption and tend to strengthen the synovial sacs. I would advise blistering once monthly as long as necessary. In many cases the puffs reappear after an apparent recovery.

A motor-car, proceeding down a busy London street the other day, was blocked by a wagon drawn by two underfed-looking horses. The driver seemed in no particular hurry to clear out of the way, and at last one of the occupants of the motor-car, desiring to appear funny, in a loud, sarcastic voice, exclaimed:

"Here, I say, my man, what are these things you are driving? What are they for, I should like to know?"

"These 'ere, guv'nor?" answered the carter, flicking the horses with his whip. "Oh, these is wot is commonly called 'orses, an' they're sometimes used fer to take motorists to the hospital!"

START THE YEAR RIGHT

CALENDAR JANUARY 1911.



SAY TO YOURSELF

"THIS YEAR I'LL USE NOTHING BUT

'CREAM OF THE WEST'

FLOUR

MADE AT A MODERN MILL AND GUARANTEED BY YE OLDE MILLER

CAMPBELL MILLING CO. LTD. TORONTO

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"Your Money Back if not Right"
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Please Mention The Advocate

THE CANADIAN BANK OF COMMERCE

ANNUAL MEETING

The forty-fourth Annual Meeting of the Shareholders of The Canadian Bank of Commerce was held in the banking house on Tuesday, 10th January, 1911, at 12 o'clock.

General Manager's Address.

The General Manager said in part: We have pleasure in presenting you with a statement which is in many respects a culminating record in the Bank's history. The past year was remarkable for a large volume of business and general prosperity, which justified our predictions when last we had the honor of appearing before you. At no time during the year was there any apprehension lest we should fall short of our estimates. The trend of business, uniformly satisfactory profits, and comparative freedom from losses, make it possible to lay before you the results of our operations with great confidence and a full assurance that they will meet with your very cordial approval.

The profits for the past year were \$1,838,065.04, an increase of \$327,370 as compared with those of the previous year—being 18.38 per cent. on the paid-up capital. This result was obtained after making a careful revaluation of our assets, and ample provision for all bad and doubtful debts.

In accordance with our recommendation, your Directors increased the dividend to nine per cent. per annum, which called for a payment of \$900,000. We are gratified that our present and prospective prosperity justifies the expectation of a larger return on your capital, and it will be our pleasure to suggest the payment of ten per cent. for the coming year.

You were good enough to pass a resolution at the last annual meeting authorizing the grant of \$20,000 as a nucleus for a Widows' and Orphans' Fund, and this sum, with the regular payment of \$30,000 towards the Pension Fund, accounts for the \$50,000 charged against profits for this year. After very careful investigation and actuarial examination, we are pleased to say we have been able to adopt a comprehensive scheme to embrace in one fund a beneficent recognition of every member of the staff. We cannot express too strongly our gratification at this consummation of our desire for the welfare of the service. This crowning act will do much to foster the best interests of the Bank, so zealously guarded since its establishment.

After providing for these appropriations, we were able to transfer to Reserve Account \$1,000,000, and to carry forward \$310,204.06 in Profit and Loss Account.

Our deposits show an increase of \$6,347,275, which we regard as a healthy growth under this head; the accession of special amounts of a temporary nature, mentioned in last year's statement, equaling the withdrawals during the year. On account of the expansion of our commercial business in Canada, current loans and discounts have increased \$10,900,344, and this necessitated the withdrawal of \$9,523,788 from our call and short loans in the United States. We report \$2,167,410 more cash on hand than in last year's statement, and our quick assets equal 45 per cent. of our liabilities, excluding capital and surplus.

The extraordinary development of Canada, the manifest need for the extension of our system to meet the requirements of a rapidly-growing business, and the protection of our business at points where we are already established, make it imperative that we should do our duty in opening branches, often anticipating the necessities of the case. We are not unmindful of the criticism activity of this kind engenders, but are conscious of the fact that we are expected to do our full share in the upbuilding of the country which gives us privileges, with the understanding that our service will be commensurate with our opportunities. We realize our accountability to the shareholders of this Bank, who have entrusted us with a large investment, and we believe you will be satisfied with the assurance that we exercise a prudent caution as we continue to open branches in new fields.

We have closed a very satisfactory year, our accounts showing unusual profits and a healthy advance in material prosperity. There was a steady and persistent demand for money to care for the needs of merchants, manufacturers, and our farming community, with rates fairly well maintained, the fluctuations being unimportant, notwithstanding the uncertainty of financial affairs in other centers with which we are intimately connected. The outlook for easier conditions in Great Britain will probably result in the sale of Canadian securities abroad in large volume, and the prospect of cheaper money in the United States may have a reflex influence here; but with the great development in all parts of Canada there should be employment at remunerative rates for funds to carry on ordinary business, and all the indications are favorable to active trade along safe lines. We enter the coming year with a confidence begotten of past experience, and hope to share in the general prosperity, and to enjoy reasonable freedom from undue anxiety in the management of our institution.

President's Address.

The President then said in part:

Doubtless the feeling most strongly present at the moment regarding business conditions in Canada is that we are enjoying a prosperity as great as we have ever known. Whatever significance the check of 1907 had at the time, or should still have, even the memory of it seems to have passed away, and with larger foreign and home trade, larger bank clearings, a larger amount of building in cities, a larger amount of railway construction, and larger immigration than in any previous year, it would be strange if we felt otherwise. Our Western bankers know that a little more expansion may make money scarce, and the pace of real-estate speculation has brought on the inevitable temporary exhaustion; but, important as these things are, they have little effect on the situation as a whole. Even the large reduction in the volume of business in the United States is regarded as mainly due to political unrest, and as having no direct bearing on our position. That we are experiencing very great prosperity is a matter evident to all, but if we examine in detail the circumstances accompanying this prosperity, there is much that is not satisfactory. Great Britain is a country which can afford to import much more than it exports, because the world owes it annually an enormous sum for interest and other things, for which it must of course take payment mainly in merchandise. The United States is a country which should export annually about \$500,000,000 more than it imports in order to pay for interest, and for the money drawn from the country by permanent absentees, tourists, emigrants to Canada, etc., and because it cannot afford to increase its debt to foreign countries, having already about 100,000,000 people, and a scarcity in many raw materials. Canada is one of the new countries which is entitled to, and which must, during its period of rapid settlement, import more than it exports. The difference is met, however, by debt obligations which must some day be paid. The question, then, is, to how much we should go into debt as the same which confronts the individual in trade, but the considerations are so large and so complicated that it is hard to know when we are wise and when unwise. What is certain, however, is that when a man is in debt he should live sparingly, not extravagantly, and that if with the money he has borrowed he has not himself in the way of making a profit, with which the responsibility of the debt should be shared, every dollar he spends should be a dollar of that debt. The same principle applies to the nation, and the lower the rate of interest the more it is so, and the more the nation spends in such a way as to add to its debt, the more it is so. The development of Canada, and the progress of civilization, which does not make it possible to stop the growth

needed present revenue from his property.

During the fiscal year 1910 of the Dominion Government, our imports and exports both reached record figures. Our imports were \$391,803,000, and our exports \$301,358,000, the balance against us being \$90,445,000. The excess of imports is not a record, having been exceeded in 1907 and 1908, but it is, as was expected, a great increase over the previous year, when, because of the contraction in 1908, the excess of imports was only \$48,162,000. The total of our foreign trade was \$693,161,000, more than three times the volume of twenty years ago. It is unfortunate that we cannot estimate, even roughly, the volume and growth of our domestic trade during the same period. Our imports from the United States were larger than ever, \$237,693,000. This is almost twice the amount of ten years ago. Our exports were a trifle less than in 1908, being \$113,115,000. The sum we had to pay to the United States in money was therefore \$124,548,000, or more than two and a half times the amount we had to pay ten years ago. This money was obtained partly from the surplus in our exports to Great Britain, partly from the sale of securities in Great Britain and Europe, and to a small degree from investments in Canada coming from the United States and the wealth brought in by settlers from that country. Our imports from Great Britain were \$95,677,000, a trifle less than those of the record year 1908. Our exports were a record, being \$149,631,000, against \$134,484,000 in 1908. The surplus in our favor was \$33,956,000, a smaller figure than in six of the last ten years, and about eighteen millions less than in the most favorable year, 1903.

It is clear that if we chose we could largely increase our exports. We know that in almost all parts of Canada the majority of farmers produce very much less wealth per acre than would be possible with greater effort and with the necessary labor available. The farmer who has no mortgage or other debts, who finds labor extremely hard to obtain, whose standard of comfort is fixed, and who is no longer young, cannot easily realize that he has any duty to the State which he does not perform, nor can any pressure be brought to bear upon him except by friendly argument and practical illustration. The fact remains, however, that because the farmers as a whole do not produce more, our debts to other countries for national expenditure made in anticipation of future development are more burdensome than is necessary.

The total value of the field crops of Canada, at local market prices, as estimated by the Census Department, is \$507,185,000, the product of 32,711,062 acres. The corresponding figures for 1909 are \$532,992,000, from 30,065,556 acres, and for 1908, \$432,534,000, from 27,505,663 acres. The loss in 1910 was in wheat, oats and barley, in which the acreage was 20,992,900, with a value of only \$248,738,000, against 18,917,900 acres in 1909, with a value of \$289,144,000. So that, while the decrease of all field crops is \$25,807,000, the loss in wheat, oats and barley alone is \$10,409,000, leaving a handsome increase in all other field crops.

The most curious feature in Canada at the moment is the outbreak from time to time of agitation, stirred up sometimes by guilds, sometimes by strikes, and often by city councils, but always by one set of interests against another. We have a more general prosperity than could readily be found elsewhere, now or in the history of the past. The only people whose labor and brains are paid by a more or less fixed recompense, which is not adjusted in accordance with the change in prices. These are the people who, as a rule, do not complain, perhaps because their future is the same in both of our wage-earners there is some adjustment, whether subsequent or not. In these days of our prosperity, which is not unshared, in the result of our country's growth, it is not due to the farmer alone, nor to the manufacturer, but to the entire community. It is not due to the farmer alone, nor to the manufacturer, but to the entire community. It is not due to the farmer alone, nor to the manufacturer, but to the entire community. It is not due to the farmer alone, nor to the manufacturer, but to the entire community.

therefore, most regrettable that, instead of each individual finding happiness and contentment in his own prosperity, and in his share in building up this country, which is his guarantee of future well-being, we agitate merely that we may still further profit as individuals, even if other Canadian industries are made to lose or are destroyed thereby?

The Maritime Provinces.

While there is perhaps less change from year to year in the Maritime Provinces than in most parts of Canada, there is a slow but steady improvement in many industries, and the year just closed has been one of marked prosperity. The results from general agriculture have been perhaps the best in the history of this part of Canada, both as to yield and as to price. The value of the field crops of the Maritime Provinces in 1910 was \$50,150,000, compared with \$49,684,000 for 1909. Potatoes suffered so severely from rot, and the yield was so small, that this important crop brought in only about half the usual returns. Apples and other small fruits, excluding berries, were most unsatisfactory—apples being less than one-third of a crop—but in other products, especially hay and grain, crops and prices were so good as to second the admirable efforts of the Agricultural College to impress upon the people how profitable are the results to be obtained from land which is fertile and near to good markets, but which lies idle largely because the people of many parts of these Provinces have been used to other pursuits. In Prince Edward Island dairying and stock-raising are increasing in volume, and have been very profitable during the past year, and the same is true of some parts of Nova Scotia, but in New Brunswick, notwithstanding the higher prices and the fine hay crops, much less cheese and butter is made than five or ten years ago, many less factories and creameries are in operation, and the stock of horses, cattle and sheep is actually less numerous than ten years ago.

Ontario and Quebec.

A year ago, despite some fluctuations in conditions, the record of agriculture in Ontario and Quebec was most satisfactory. This year the record is still better, and it is questionable if as regards yield or prices, excepting in the case of fruit, potatoes, and one or two minor articles, a more generally successful result was ever obtained by our farmers. High prices in 1909 had caused a larger acreage of grain to be planted, farm work began early in the spring, fall wheat came through the winter well, harvest results were excellent, hay gave a large yield, roots in most localities did well, cattle, horses, hogs, poultry, eggs, and all dairy products brought high prices, but the supply was unfortunately always insufficient. The value of the field crops of Ontario and Quebec for 1910 was \$301,109,000, compared with \$290,469,000 for 1909.

Although in the fruit districts, where apple-growing is carried on scientifically, as fine apples were produced as could be desired, the crop, as a whole, was as great a failure in Ontario as in the Maritime Provinces. In neither district can accurate statistics be obtained, but the quantity shipped from Montreal is sufficient to show that a bad crop means. In 1910 the shipments were only 163,000 barrels, there being no recent year comparable with this, except 1901, when shipments were only 122,000 barrels. The highest figure reached was in 1903, 732,000 barrels, and the average of eight ordinary years was about 515,000 barrels. Doubtless no care would have averted the main cause of a lessened crop, but with scientific methods the number and size of the apples would always be greatly increased and the quality greatly improved.

We used to be able to follow closely the growth of our dairy industry by using the figures of the shipments of cheese and butter from Montreal as examples, but new conditions have arisen, and these figures are now of little use. The consumption of butter in Canada and of cream in Canada and the United States, has practically destroyed our foreign trade in butter, which one year reached 523,449 packages, valued at \$7,440,000. The same causes have kept our cheese exports almost stationary for some four years. The figures for 1910 are 1,882,000 boxes, worth \$17,300,000, as against the record of 2,395,

982 boxes in 1903, valued at \$21,500,000. One great departmental store collects direct from the farmers sufficient milk to keep several cheese factories busy.

Successful as the year has been with the farmers of the East, there is a growing conviction that this part of Canada is at the moment a land of neglected opportunity, largely owing to the easy success of those who have taken up the cheap lands and virgin soil of the West. While many think that more effort is necessary to success in the East, facts gathered from recent experience show that in no part of Canada can a larger return be obtained in proportion to the intelligence employed than here in Ontario. We have one of the best and most famous of Agricultural Colleges, and wherever one of its students is farming, the effect of his knowledge on his own farm and the influence of his example on those of others is most marked, but there are many parts where no such examples of improved methods exist, and the Government has now adopted the plan of taking the College to the farmer. The Farmers' Institute lectures and the Agricultural Fair prizes have done and are doing much good, but the new effort is of a much more effective and practical nature. It is sought by demonstration farming, actually carried on by experts acting for the Government, and by visits paid to various parts of the Province by experts who are able and willing to give advice, gradually to break up that condition of contentment with the farming of our fathers, which is so great an enemy to progress. If young men can be shown the results of a thorough knowledge of stock-raising as compared with not knowing, of caring for orchards instead of not caring for them, of systematic manuring and of proper drainage, of a knowledge, indeed, of the many things which bring about the enormous difference in results between old-fashioned and up-to-date farming, we may hope that more farmers' sons will stay on the land, and that increased wealth and happiness will be the result. But actual results are more powerful arguments than mere preaching. An orchard in Ontario which yielded prior to 1909 \$100 worth of apples annually, produced in 1909, in new hands, fruit worth \$1,437, the net profit on which was \$974, in addition to apples not suitable for eating, worth more than the whole crop before the orchard was properly cared for. In other cases 8 acres of orchard produced \$2,489 gross, and \$1,890 net; 5 1/2 acres produced \$2,237 gross, and \$1,720 net; 1 1/2 acres produced \$539 gross; and many cases of yields in money from \$150 to \$300 per acre could be shown, the result varying of course with the age of the trees, but mainly with the practical knowledge of the fruit-grower. In vegetables one man with 17 acres raised 127 tons of cauliflower, which he sold for \$30 per ton, a return of about \$225 per acre. We know that for years large profits have been made in Ontario growing fine roses and other flowers for New York and other United States markets, but we now hear of one experienced hybridizer, who is also a banker, who has made himself famous, as well as prosperous as a producer of innumerable species of gladioli, which are in demand in all quarters of the world. It must be remembered that these results are not due merely to the prox-

imity of a market, but that in almost any part of Western Ontario similar things can be done. Too much credit cannot be accorded to the Department of Agriculture for Ontario for the effort it is making, and we can but hope that the number of lecturers and demonstrators will be increased, and that they will be persistently kept at work as a permanent force working for agricultural improvement. In some parts already a new tone has been given to farm affairs, emigration to the West has nearly ceased, farm values are increasing, and intensive farming is a subject of general and keen interest.

That a more enterprising spirit is necessary may be readily gathered from the statistics of live stock in Ontario. From 1901 to 1907, the number of horses on hand grew from 620,000 to 725,000, but since that year there has been practically no increase. The number sold annually has, however, increased from 51,000 in 1901 to 98,000 in 1910, which is evidence enough of the difficulty of maintaining a stock on hand. The number of milch cows in 1901 was 984,000, in 1907 1,152,000, in 1910 only 1,052,000. The number of other cattle in 1901 was 1,523,000, in 1906 1,834,000, and in 1910 only 1,514,000. The number of stock slaughtered, however, rose steadily from 610,000 in 1901 to 817,000 in 1910. In sheep and lambs, the story is one of steady decline from 1901 to 1910, in both the number of those on hand and of those slaughtered. In swine, the number on hand rose from 1,491,000 in 1901 to 2,049,000 in 1907, and fell to 1,561,000 in 1910, while the number slaughtered rose from 1,973,000 in 1901 to 2,267,000 in 1905, and fell to 1,844,000 in 1910. In poultry of all classes there has been a satisfactory increase in the number on hand, and in the number annually killed. It will be seen from these figures, which are mainly taken from reports of the Agricultural Department of the Province of Ontario, and do not agree very closely with those of the Census Department at Ottawa, that we are meeting a greatly increased demand by decreasing the stock on hand, and such a state of things cannot, of course, continue long. Many quite natural causes have led to this result, and others will tend to remedy it to some extent in the near future. Hay being scarce, high prices prevailing for coarse grains, and the highest prices ever known for cattle, the farmer has in many cases sold both cattle and coarse grains, instead of feeding his stock as usual. But food crops are now more plentiful, and we may look for an increase in the stock of animals on hand.

Manitoba, Saskatchewan and Alberta

Considerable disappointment, as we all know, accompanies the record of what is nevertheless another year of progress in the Prairie Provinces. The wheat, oats, and flax reaped in the previous year were the highest in grade, and the whole crop was the largest and produced the largest sum in money ever known. Under such conditions, the acreage for 1910 was naturally increased, not merely by older farmers, but by new settlers preparing their first crops. With an early spring everything promised well, but because of many adverse conditions a smaller and less highly-graded crop was the result. Our estimates in August were:

	Bushels.
Wheat	88,000,000
Oats	90,000,000
Barley	17,000,000
Flax	4,000,000

Other estimates are as high as 104,000,000 bushels for wheat, and 128,000,000 bushels for oats, but we do not expect either wheat or oats to reach 100,000,000 bushels. About 60 per cent. of the wheat is fit for milling, and oats and barley grade badly. The flax crop was larger than in 1909, and the price during 1910 has been as high as \$2.54 per bushel, and is still most unusually high, so that the crop is much more important than might be supposed. The money result from the crops of the three Prairie Provinces, as estimated by conservative Western opinion, will be about \$20,000,000 less than for 1909. The estimate of the Census Department, which includes all field crops, is less favorable. The total field crops for the three Provinces for 1910 are valued at \$155,926,000, as compared with \$192,839,000 for 1909, a less amount by about \$37,000,000. Much of the shrinkage in value is due to decline in price.

The smaller yield of the crops of these Provinces is due to unfavorable weather in three districts, Southern Alberta, Southern Manitoba, and South-western Saskatchewan. In the northern districts, and in some southern parts, results were most excellent. In the districts where results were generally unfavorable, however, isolated cases stand out clearly, showing splendid results obtained, despite the weather, simply by scientific farming. Agricultural conditions at the moment in Southern Manitoba and parts of South-western Saskatchewan, are unsatisfactory because of lack of moisture, while in Southern Alberta, because of plentiful moisture during the last few months, the prospects are as good as could be desired. For some years the necessity of more advanced methods in such older parts as Southern Manitoba has been painfully evident. May we now hope that the Government of Manitoba, as well as the farmers, will forthwith do the quite obvious and not difficult things necessary to redeem and maintain the reputation of this part of Canada as a grain-producing country. Undoubtedly the crop is largely reduced every year by the prevalence of weeds, and it is clear that the Provincial Government cannot take too much trouble to remove this evil as far as possible. Enough has been done by individual cases of good farming to show how much larger the profits of agriculture in the West should be. The results of the present poor crop have been improved by the fact that mixed farming has been increasing—indeed, that is the direction in which Southern Manitoba is already working out, the reform made necessary by the impoverishment of the land as a result of repeated grain crops.

There is no question of more importance to Western development than that of improving the breeding of live stock and of increasing their numbers. We are witnessing the gradual extinction of the rancher, and the gradual establishment of a great grazing and feeding industry. It is naturally dulled by the increase due to the slower methods of the latter to make up for the losses consequent on the passing of the rancher, but the outlook as a whole is promising. The Live-stock

Exhibition at Winnipeg in 1910 exceeded all records in the number of high-grade animals shown, and these were of such excellence that little further improvement can be looked for, some classes having been the finest ever shown in America. The progressive Western farmer is demonstrating to his fellows that if each of them will, as soon as he can afford it, raise a few head of high-grade stock, the disappearance of the rancher will redound to their gain, and the problem of maintaining a sufficient supply of animals will be solved. As matters now stand, stocks are not as large as they should be, nor are they increasing as fast as they should. Statistics do not go far enough back in Saskatchewan and Alberta to be of much service, but in Manitoba horses have increased in numbers only about 50 per cent. in ten years, cattle a trifle more than 50 per cent., sheep have lessened in number, swine have increased about 100 per cent., and poultry about 65 to 70 per cent. Such statistics as are available, show that stocks on hand for the three Provinces are about 870,000 horses, 2,300,000 cattle, 345,000 sheep, and 608,000 swine. Figures for poultry seem unreliable, but apparently there are not yet half as many as in Ontario. One has only to look at the map and consider the small part of Ontario that is farmed, and to compare it with the West, in order to see how very much must be done before it can be made impossible for the Vice-President of the C. P. R. to reproach Manitoba with the importation of 12,000,000 eggs in one year over that railway alone, and to say further that the poultry and cream for their dining cars must be obtained partly in the United States.

The storage capacity of terminal and inland elevators has increased from 63,190,000 bushels in 1909, to 77,901,000 in 1910.

The railways are again to be congratulated on the manner in which they handled the crop. It is estimated that by the close of navigation 60,000,000 bushels had reached the head of the lakes. Terminal facilities for handling the crop have still further improved, and through the Lake Shippers' Clearance Association, vessels can be loaded and despatched with much greater rapidity than heretofore. There has been the usual large increase in the mileage of railways, with the prospect of a still greater increase in 1911. In addition to Winnipeg, there are now many important railway centers, such as Brandon, Regina, Moosejaw, Weyburn, Saskatoon, Prince Albert, Yorkton, North Battleford, Edmonton, Calgary, and Lethbridge.

One of the most interesting things in the settlement of Canada is the work of the superintendent of the irrigation schemes of the Canadian Pacific Railway. The policy of providing "ready-made" farms is succeeding admirably, and the dryness of the past season has drawn attention to the value of irrigation in Southern Alberta. Sales of land in the irrigation area have been very large during the last three years, and have lately averaged a million dollars a month. The railway company naturally favors sales which result in immediate occupation. Their plans have succeeded so well that an appropriation of \$8,000,000 is said to have been voted by the Railway Board in order to carry the irrigation system further east.

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Get the Most Chix

because they come closer than any other incubator to matching Nature's own conditions. The hen sitting on the ground is still, on a small scale, the most successful hatcher. But she **can't hatch** 20 or 30 dozen eggs at a time, and she **won't hatch** them at the right season to make winter layers or cockerels that are ready for market at off seasons, when prices are highest.

The most successful Canadian poultry raisers therefore use the "Prairie State" Incubator because it practically equals, on a great big scale, the hen's success with her little setting.

Gunns Prairie State Incubators are built not so much to sell, as to hatch chicks. Note that. We are making incubators and marketing them at rock-bottom prices simply because they will help in our campaign for "More and better eggs and poultry"—not because we want to make profits out of incubators.

Gunns Prairie State Incubators are **honestly made** in our own factory at Ste. Therese, P.Q.—the finest wood-working factory in the Dominion. No poor material or flimsy construction is tolerated, for we have a reputation for 40 years of square dealing at stake.

They are designed so that the **heat is distributed evenly** to every egg in the tray. There are no cold or hot spots.

The **correct temperature is maintained**, within a fraction of a degree, whether the temperature outside the incubator be zero or 80 degrees.

The moistened sand tray gives an **absolutely even and easily regulated supply of moisture** to every egg. This prevents drying up the eggs, and brings out big, strong, healthy chicks.

An **even supply of fresh air**, free from lamp fumes, is provided, greatly increasing both the hatch and the vitality of the chicks.

Thus Gunns Prairie State Incubator supplies so perfectly the conditions of natural hatching that it not only brings out a very high proportion of chicks, but **the chicks live.** When

GUNNS UNIVERSAL HOVERS

are used for brooding, results are even better than those secured by natural methods. These Hovers enable you to raise chicks successfully at any season and in any numbers. Gunns Combination Colony House Brooders make the most convenient, practical equipment known.

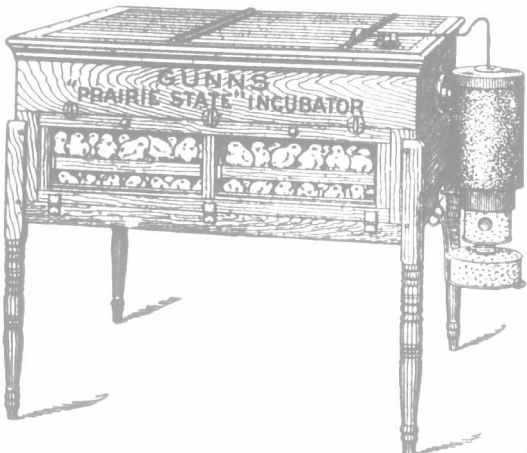
Write for our book on **Practical Poultry Raising.** It tells all about the "Prairie State" line, and how to raise poultry for profit by common sense methods that have proved successful. Meantime, note these prices:

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No. 0.—100 hen eggs—	\$18.00
No. 1.—150 " " "	22.50
No. 2.—240 " " "	32.00
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GUNNS Universal Hover	
With lamp, lamp case and smoke conductor	\$7.00

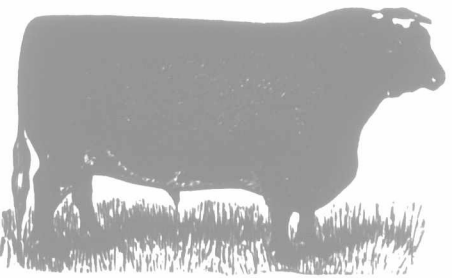
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Conveyances will meet Traction Cars at Glendale, two miles from the farm, and three miles south of London, the morning of the sale.

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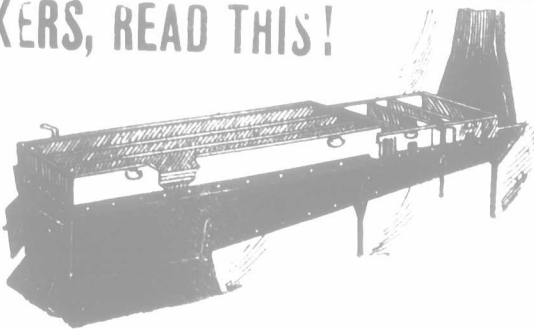
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AUCTIONEER: CAPT. T. E. ROBSON.

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Don't wait until the month of March to place your order for an Evaporator, or utensils required for use in your sugar camp this spring. Send in your order NOW, and be all ready equipped to handle the first runs of sap, which are the most profitable to the sugar maker. Write us TODAY, and we will send you our latest catalogue and price list. We are headquarters for the "CHAMPION" Evaporator and all up-to-date sugar-makers' supplies.

The Grimm Mfg. Co. Limited,
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QUESTIONS AND ANSWERS. Miscellaneous.

BRITTLE FEET—RUPTURE.

1. The fore feet of a five-year-old mare are getting very hard and brittle.
2. Colt seven months old has a small rupture between the navel and sheath. Please advise treatments. F. L. C.

Ans.—1. Moisture, applied by means of wet cloth bandages, or by standing the feet an hour or two daily in two or three inches of water, is the best means of softening the hoof when not on pasture.

2. This may disappear as the colt grows older. If not, a truss should be used, buckled around the body, with a pad placed over the rupture to press it up, and this kept on for three or four weeks.

COST OF BUILDING.

What would be the cost of building a building 40 feet long by 20 feet wide, part of it to be a pigpen and the rest a yard for cattle to run in?

1. How many loads of stone will it take to build foundation 10 feet high, allowing for one large door in shed and one small one in pigpen; also four or five medium-sized windows? Stone at 20 cents per load.

2. How much lumber will it take, including sheeting for roof, building to be 9 feet high on stonework, lumber at \$20 per thousand?

3. How many squares of shingles will it take, and what is the usual cost per square? SUBSCRIBER.

Ans.—1. A 10-ft. stone wall for a building 40 x 20 feet and say 18 inches in thickness, allowance being made for doors and windows, would require about 15 cords of stone, or, at four loads per cord, 60 loads. At 20 cents per load, stone would cost \$12.

2. Assuming that there will be a floor of inch lumber at the level of top of stone wall, there would be required for such floor, for siding and for sheathing, 3,100 feet of inch lumber. In this estimate, no account is taken of what might be needed for doors, pens, partitions, nor for braces and rafters. These would require about another 1,000 feet. Total, 4,100 feet, at \$20 per thousand, \$82. The frame, whether of timber or plank, would be in addition to above.

3. About eleven squares of shingles would be needed for the roof. The cost per square for best shingles should not exceed \$2.50. The price of best red-cedar shingles in London at present is \$3.25 per thousand. T. B.

DOCKING A COLT.

1. Give instructions for docking a colt. Can an amateur perform the operation? Would it be advisable to dock a pregnant mare?

2. Give treatment for shoe-boil. What preventive measures could be taken to prevent recurrence of the trouble?

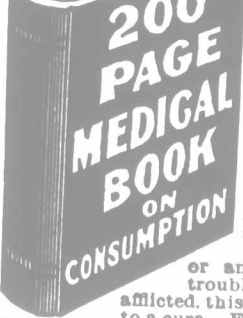
3. A few years ago you published a "Gestation Table." Could you give me the page and volume in which it occurs? W. S. M.

Ans.—1. While an amateur may operate, it is usually wise to employ a veterinarian, as he understands it and has the proper instruments. The usual method of operating is as follows: The hair is parted at the seat of section, and a cord tied tightly above it to prevent bleeding. A twitch is applied to the horse's lip and the tail severed. This is done with a docking-knife, but the tail may be severed with an ordinary knife in the case of a colt. The stub is then seared with a red-hot iron to prevent bleeding. We would not advise docking a pregnant mare.

2. Shoe boils are caused by the point of the elbow coming in contact with the heels of the shoe when a horse is lying down. The proper name is capped elbow. To prevent it, the heel should be padded, or a piece of 2 x 2-inch stuff nailed crosswise in the stall, about half-way across. If it is well fomented with warm water in the early stages, and the following liniment applied every day for two weeks, being well rubbed in, the more serious form of the disease may be avoided. Soap liniment, 4 can strong spirits ammonia, 4 drms mixed.

3. The gestation table appeared in the issue of May 16th, 1906, page 708.

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.**, 1632 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.

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PLEASE MENTION THE ADVOCATE.

QUESTIONS AND ANSWERS. Miscellaneous.

HON. R. L. BORDEN'S RELIGION

To what denomination in religion does R. L. Borden, the Leader of the Opposition, belong? W. J. Ans.—Church of England.

SIZE OF PUMP CYLINDER.

What size of pump cylinder should be used to draw water from a well 20 feet deep and 230 feet away from a barn, through a 1 1/2-inch pipe? J. P.

Ans.—The pump that will give best results will be one with a cylinder some what larger than the pipe, say two or three inches. W. M. H. DAY.

SPIDER'S EGG-BALL.

G. G.—From your description, the spider of which you write was probably a species of Epeira—one of the orb web-spinners. The markings on the large abdomens of some of the Epeiras, both in form and color, are remarkably striking and attractive.

With regard to the egg-cocoon, we cannot give you directions which are sure to prove satisfactory. It is believed that when the eggs hatch, the spiderlings prey upon each other until the survivors get large enough to pursue the method of capturing their food which is practiced by the adults of their species. Spiders in captivity will live a considerable time if supplied with water from a bit of wet blotting-paper or wet cloth, but they do not take readily to food. J. D.

WINTER FEEDING OF TURKEYS AND GEESE.

1. What is the proper kind of grain to feed, and what quantity, for turkeys during the winter months, to place them in the best condition for laying in the spring? J. B.

Ans.—1. Moderate feeding on oats, wheat, and a very little corn, should keep your turkeys in good laying condition. Be careful not to overfeed. W. J. Bell, of Simcoe Co., Ont., one of our most successful turkey breeders, says on this point: "The breeders should be in only moderate flesh, and as the females have a tendency to become fat towards spring, all grain should be withheld from them at this time. The male, however, should have one good feed of wheat or oats each day." Of course, the turkey breeder must use judgment. The hens cannot live on nothing, and if they have not opportunity to gather reasonable sustenance by foraging, some feed must be given.

2. For geese, the winter feed should consist largely of pulped roots and other bulky vegetable feed, with a very limited amount of grain to avoid making them over-fat.

BUYING MANURE AND SELLING FEED.

Will you kindly inform me, through "The Farmer's Advocate," of when manure can be secured at the Toronto Stock-yards for 75c. per ton, f. o. b., with a 65c. freight rate, and delivered within one mile of a farm, whether it would be more profitable to buy it and sell hay at \$12, and grain at an average of \$1 per hundred, or to buy stock and feed it, the object being to increase the yields on 100-acre farm as fast and profitably as possible. J. P.

Ans.—The answer to your question is complicated by the variability in results obtained by different men in feeding stock, the variability being due to the man himself, his business ability in buying and selling, his skill in feeding the class of stock he keeps, stabling accommodation, and other factors. Live stock, to be profitable, must be something more than animated manure factories, but some farm animals are little more than this. With reasonably competent stock-husbands, however, we should say it would pay better to feed the farm-produced hay and grain to good cattle, horses, sheep and pigs, rather than to sell produce and buy manure. Of course, for most profitable results, corn silage and alfalfa hay should be largely utilized, if it is possible to grow them at all successfully. Profits of winter labor and guarding against chances of introducing bad weed seeds are two strong points in favor of feeding the hay and grain upon the farm. This may especially should be fed to stock that can be sold.

COWS ABORTING.

Three of my cows came in quite lately, and their time was not up till about the first of April. The calves, which were living, were about the size of a small dog. They were very weak, and died in a few hours. Do you think this is abortion, and could you prescribe any cure for it? I have several more cows, and am afraid of them going the same way. I know they could not have been hurt, for I have water in my stable, and they are never out. At first I blamed it on feeding them corn, as I had given it to them along with hay up to Christmas. My corn was well saved. Has been in my barn, but, of course, was frozen. Since the first one came in, before Christmas, I stopped the corn altogether. Do you think the corn might be the cause of it? My stable is a large building, 40 x 50. The cows are at one side, and a wide passage, with the horses at the other side, and, for about a month, some pigs. Is it unhealthy to have those pigs there? They are kept clean all the time. The hens, too, run through the stable in the daytime, but are shut out at night. The cows seem to be doing well, and are apparently in a good, healthy condition, up to the time they come in. I have been giving them carbolic acid since Christmas, and see no change. Is there any use of keeping on at it? Would there be any use keeping those cows over another year, or would they be apt to go the same way? J. H. S.

Ans.—These are certainly cases of abortion, but we are inclined to the opinion that it is not contagious abortion, as it is unusual to find a number of cases coming so close together. It is unlikely that the frozen corn fed has had the effect of causing abortion, but it may be that the keeping of hogs in the same building has been the cause, especially if the ventilation is not good. We have little faith in any known medicinal treatment for abortion, but advise cleanliness, judicious feeding and good ventilation as preventive measures. Cows which abort should not be bred again for at least three months. If there is contagious abortion in the herd, the cows are almost certain to repeat the act two or three times, after which, as a rule, they become immune, and carry their calves the full time, but as long as there are aborting cows in the stables, others are liable to contract it.

TRADE TOPIC.

PROFITS BY SHELTER—If more farmers would seriously take into consideration the amount of profits they forfeit every winter from poorly-housed stock, they would lose very little time in remedying any such evil that exists on their own farms. The cost of properly repairing the quarters is not so great as would at first be supposed. If the buildings are in fair condition, all that is necessary is a good, sound, substantial roofing. Genasco Ready Roofing is made of Trinidad Lake asphalt—the great natural waterproofer. Any handy man can easily lay it—all the tools required are a hammer and a pair of shears. The chief difficulty with most ready-made roofings is to obtain a perfectly watertight seam. The Kant-leak Kleet supplied with Genasco is claimed to ensure a perfectly waterproof seam, does away with the use of smeary, unsightly cement, and gives the roof an attractive appearance. If you don't know the dealer in your neighborhood who carries Genasco, write to the Barber Asphalt Paving Company and they will send you his name and address, and also a copy of their useful and instructive "Good Roof Guide Book."

AND A BARGAIN AT THAT.

A little boy had got into the habit of saying "Darn," of which his mother naturally did not approve. "Dear," she said to the little boy, "there is ten cents if it is yours if you will promise me not to say 'Darn' again." "All right, mother," he said, as he took the money. "I promise." As he lovingly lingered the money, a hopeful look came into his eyes, and he said: "Say, mother, I know a word that's worth fifty cents." Ladies' Home Journal.

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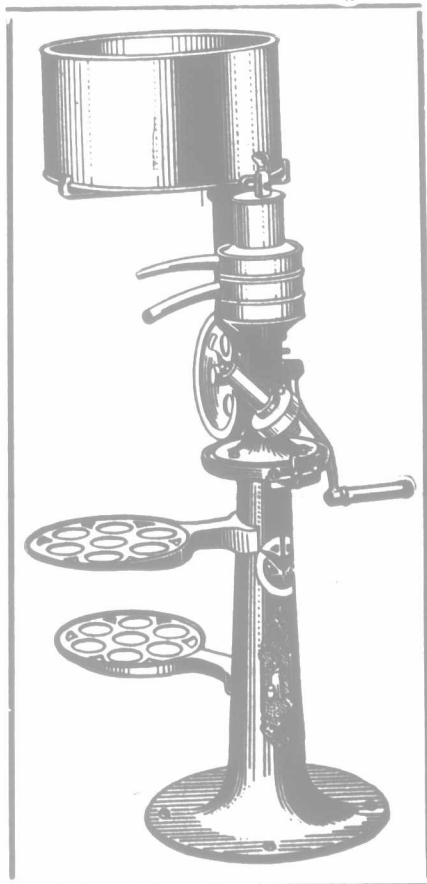
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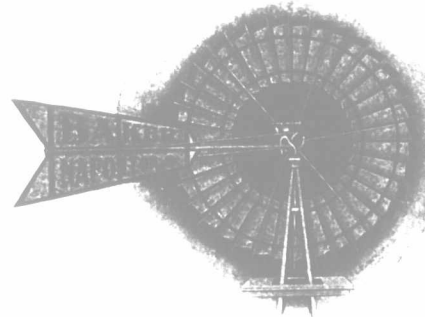
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For simplicity of construction, workmanship and durability, Baker mills made by us for more than a quarter of a century stand unchallenged. Write for catalogue.

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For the cure of Spavins, Ringbone, Curbs, Splints, Windgalls, Capped Hock, Strains or Bruises, Thick Neck from Distemper, Ringworm on Cattle, and to remove all unnatural enlargements.
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that make a horse wheeze, Roar, have Thick Wind, or Choked-down, can be removed with
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 Of any Bunch or Swelling. No blister, no hair gone, and horse kept at work. \$2.00 per bottle, delivered. Book \$1.00 free.
 Mr. Robt. Jones, Sr., Mar-mora, Ont., writes, April 8, 1907: "I had a valuable horse with a big leg, and used one bottle of ABSORBINE, and it cured him completely."
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 We sell nothing but meritorious stock, and our stock sells on its merits. Young stock of both sexes for sale. Write us now.

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 To grow the finest flowers and most luscious vegetables, plant the best seeds. Ferry's Seeds are best because they never fail in yield or quality. The best gardeners and farmers everywhere know Ferry's seeds to be the highest standard of quality yet attained. For sale everywhere.
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BOOK REVIEW.

REVIEW OF "A DAIRY LABORATORY GUIDE."

We take it that this work, by H. E. Ross, of Cornell State College of Agriculture, Ithaca, N. Y., is intended as a text-book for dairy students, rather than as a general work on dairying for the average reader. On the whole, the author and publishers (Orange Judd Co., New York) have produced a commendable work for students of dairying.

A text-book, more than any other, should be clear, concise, and free from errors. On the first two points the work would score quite high, but on the third point there is room for improvement. Some of these are errors in judgment or opinion; some are, or may be, typographical errors; but some look very much like carelessness or haste in preparation. There is probably too great a tendency to "rush into print" with immature ideas, or statements which have not been carefully thought out.

As examples of what we should term errors in opinion, we may be allowed to cite the following:

"The water (of milk) needs no discussion, as it is just like the water found anywhere else in nature"—p. 1.

"That is the most important constituent of milk."

We have not time or space to discuss these statements in detail, except to say that these are common fallacies which have been floating about in the dairy press during the past twenty years, and which will probably require another twenty years to eradicate from the minds of dairymen.

On page 3 is what may be called a typographical error, "colloidal" for colloidal.

"The C. U. Butter-moisture Test"—a heading on page 28, is what may be called an error due to carelessness, or want of thought as to the position of the average reader or student who is not likely to know that "C. U." stands for "Cornell University." We confess to having studied for some time in order to know what these letters meant. This is a distinct violation of the rule for clearness in all writing, and especially for text-books.

Another curious error of the same class is found on page 28, where the author is discussing the rule for making corrections in temperature of the milk when using a Quevenne lactometer to determine specific gravity. He says, when we cool the milk down we add; when we warm the milk we subtract. As a matter of fact, we do the very opposite. I find among dairy students, and with some men who consider themselves experts, a haziness about this rule for making corrections in lactometer readings as affected by temperature of the milk. The reason for this is that they have not thought the matter out clearly in their own minds. The only way to be sure, is to get a picture of the lactometer and the lactometer scale in the mind; then reason the effect of heat and cold upon the density of liquids, including milk; then see clearly the effect of increased or decreased density upon the distance which a lactometer will sink in the liquid—all this passes through the mind like lightning, but it is the only way to be sure on the point.

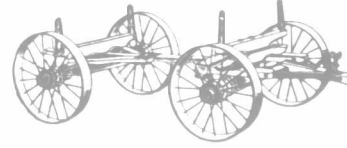
Outside of these errors, the book will be very helpful to the person who wishes a "Guide" in understanding the testing of milk for fat, solids, specific gravity, acidity, etc., together with simple lessons on dairy chemistry.

The price of the book is 60 cents. It may be ordered through "The Farmer's Advocate." H. H. D.

A Scotch nobleman happened to learn, while in Washington temporarily, that a certain distinguished family in Petersburg, Virginia, were related to him. How he found it out is not told. But at any rate, after much correspondence, preparation, etc., upon the part of the Virginians, he went to visit them. Exactly what the mistress or master of the Petersburg household may have taught their servants with regard to the manner of address proper toward a nobleman is not recorded, but at dinner, the cousin of his aunt, a colored man, handed him a dish, with the perfectly audible remark, "My God, take some!"

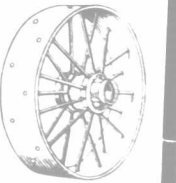
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My 1910 importation, nearly all 2- and 3-year-olds. They are ideal in draft character, with faultless quality of underpinning, every one will make a ton-horse and over, and they represent the best blood of the breed; they will be priced right and on terms to suit. Farm is two miles from end of street car line. A phone from Guelph will bring a conveyance to meet visitors.

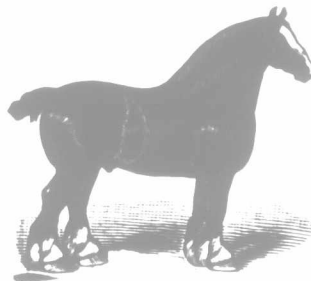
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I have 22 Imported Clydesdale Stallions to select from, of different ages, and from such noted sires as the champions Hiawatha, Marcellus, Baron of Buchlyvie, Baronson, Haplant's Pride, Silver Cup, Revelanta, Royal Blend, Baron Clyde, Shapely Prince, etc. The breeding is the best, and the individuals second to none. Prices and terms right. Just give me a call and be convinced that you struck the right place. Markham 20 miles north of Toronto, on the G. T. R. Locust Hill Sta., C. P. R., 3 miles. Long-distance phone. Will meet visitors on the shortest possible notice.

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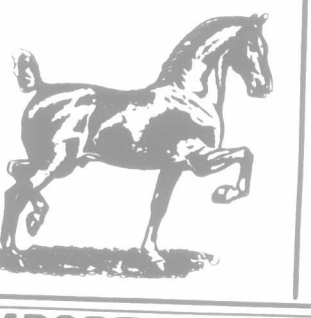


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In my stables at Ingersoll, Ont., I have always on hand Clydesdale stallions and fillies, and Hackney stallions, personally selected in Scotland for their high-class type, quality and breeding. Let me know your wants.
W. E. BUTLER, INGERSOLL, ONT.

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Our 1910 importation of **Clydesdale Stallions and Fillies** are now at our stables. We can show some of the best individuals and best breeding sires imported. Our prices are right, and terms to suit.
JOHN A. BOAG & SON, Queensville, Ont.

IMPORTED CLYDESDALES AND PERCHERONS.

My 1910 importation are in my stables at Bolton, Ont. There never was a better bred lot landed, nor a better lot of big, typical draft horses, full of quality and with perfect underpinning. Clydesdale stallions and fillies, and Percheron stallions. I will not be undersold.
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Elliman's Royal Embrocation. Elliman's Universal Embrocation. ELLIMAN, SONS & CO., SLOUGH, ENGLAND.

South Perth.

This is the best winter for sleighing that we have had for some time. The snow came early in December and still remains on the roads; yet there is not much teaming being done. The roads are not kept in proper condition for drawing much loose hay, and cutting wood and logs is too much like hard work for the average farmer to practice. Very few keep a man in winter, consequently choring leaves little time for other work. It takes the average farmer all winter to get enough wood cut for his own use, and many of them don't do that, but fall back on coal when their wood-pile decreases. This, I think, accounts more than anything else for the present preservation of the wood-lot—the labor and expense of harvesting is too great, compared with other crops, for the profit derived. Very few believe that it pays to preserve the wood-lot, except as a source of supply for timber to "fix" the barn or build an implement shed or pigpen. Yet there is ten times more timber than will supply all these needs for the next fifty years.

Some parts of this county and adjoining counties still retain the statute-labor system of road-making. This winter we notice that some "beats" two miles or more from the pit, are doing part of the work now by drawing and piling the gravel in some convenient place (usually at home), to be applied to the roads in the spring. The council forbids the application of it (and rightly so) to the roads in winter. Many of the leading roads into the market-town are in good condition, but some are a disgrace to any municipality. The "town fathers" complain that the town limits are too extensive to care for the roads properly. The limits should be decreased, or the Provincial grant applied first to the improvement of these leading highways.

J. H. BURNS.

TRADE TOPICS.

The strong points in the make-up of the Baker Wind Engines, manufactured by The Heller-Aller Co., Windsor, Ont., are stated in brief in their new advertisement appearing in this issue, while their catalogue, which will be mailed free on application, gives full information.

The report of the forty-fourth annual meeting of the Canadian Bank of Commerce, appearing elsewhere in this issue of "The Farmer's Advocate," makes very interesting reading even for those who have no special interest in that substantial institution. The financial statement reveals an evidently carefully-managed and successful business, while the President's address regarding general business conditions in Canada, and the prospects for the coming years, is full of information well worthy of consideration by commercial business men, and also by farmers, as interesting figures are given from Dominion Government reports of our imports and exports for the past year, and of the comparative yields and values of farm crops and live stock revealed by the census.

PURE-BRED ANIMALS AND PLANTS.

—That there is as much difference between pure-bred and ordinary animals, as between pure-bred and ordinary plants, is the claim made by D. M. Ferry & Co., of Detroit, the great flower and vegetable breeders, whose 1911 annual catalogue has just been issued. They argue for the great value and economy of well-bred seeds. "Any fundamental natural law which applies to animals, applies equally to plants," they state. A good cow may eat no more than a poor one, but give twice as much butter-fat. "Good blood" makes as much difference with corn as with cows. But pure-bred plants, like pure-bred animals, are not produced in one or two generations, for no matter how superior an individual of common origin may be, its progeny are, as a rule, like the general run of its antecedents. Hence the need for seedsmen like D. M. Ferry & Co. They have experience, the best plant-breeding equipment in the United States, and the business acumen to sell only such seeds as have been bred from the choicest stocks for many generations. D. M. Ferry & Co.'s Seed Annual for 1911 may be had free of charge by writing to them at Windsor, Ontario. It contains much of interest for those who think

As they sometimes are. As "SAVE-THE-HORSE" can make them.

SOUND

IS IT WORTH \$5.00 MORE?

THIS TELLS THE STORY

Our contract takes absolutely every particle of chance out of the matter so far as the user is concerned. This is no "say so" or "catch the unwary" sort of guarantee; it is a legal, binding, signed agreement to protect purchaser. Send for copy and absolute proof—results—truths from business men, bookers, manufacturers, breeders, and horse owners the world over.

15 YEARS' SUCCESS. On any and every case the kinds where all other methods fail, it proves to have the potential properties and power to consummate the desired result. Whether an old, new or a serious complicated case considered beyond hope, in using "Save-the-Horse" you are not frittering away time and money.

EXPERT VETERINARY ADVICE ALWAYS FREE.

The Citizens' Bank of Atchison Co., Rock Park, Mo. — I have bought several bottles of "Save-The-Horse." I used part of last bottle on bay mare, lame in hind tendon, with great results. Have had over 25 years' experience and consider it the greatest remedy I ever had. W. W. HUDSON.

STAYS SOUND: THAT'S THE BEST OF IT.

Brooklyn, N. Y., June 21, 1910. — Just a year ago to-day I bought of my dealer a bottle of "Save-The-Horse," which I used with great success. It cured my horse entirely of a bone spavin. He was so bad he could not be used without danger of my being arrested. Now it would take quite a little money to buy him. I cannot praise your spavin cure too highly. TOS. J. BRADY, 4402 16th Ave.

Denver, Colo., June 23, 1910. — I have cured one of the worst thoroughbreds on a stallion that ever was, with your remedy, and did not use quite one bottle. It certainly does the work. Since using your medicine I am sure of its merit. — Geo. W. WILLIAMS, 1643 Marion St. Respectfully,

\$5.00 a Bottle With Signed GUARANTEE

A binding CONTRACT to protect purchaser absolutely in treating and curing any case of Bone and Bog Spavin, Thoroughpin, Ring-bone (except low), Cork, Splint, Cupped Hock, Windgall, Sheath, Injured Tendons and all Lameness. No scar or loss of hair. Horse works as usual. Send for copy of contract, booklet on all lameness and letters on every kind of case.

At all druggists and dealers, or express paid.

Troy Chemical Co., 148 Van Horn St., Toronto, Ont., and Binghamton, N. Y.

\$1.00 SAVES HIM!

Cure your horse of any Spavin, Cork, Splint, Ringbone, Bony Growth or Lameness with a 61-cent bottle of

KENDALL'S Spavin Cure

Used by thousands for 40 years. One man writes:—
Middle Hainesville, N. B., June 21, 1909
"I have used your Spavin Cure for 10 years and find it the greatest remedy on earth for men and beast."
Sherman Jones.
"No telling when your horse will lame itself. Get Kendall's today and keep it handy. Our book, "A Treatise On The Horse" tells how to cure all horse troubles. Free—at dealers or write us."
Dr. B. J. Kendall Co., Escanaba Park, Wt.

MESSRS. HICKMAN & SCRUBY

Court Lodge, Egerton, Kent, Eng.

Exporters of Pedigree Live Stock of all Descriptions.

From now on we shall be shipping large numbers of horses of all breeds, and buyers should write us for particulars before buying elsewhere. If you want imported stock and have not yet dealt with us, we advise you to order half your requirements from us, and obtain the other half any way you choose; we feel confident of the result, we shall do all your business in the future. Illustrated catalogues on application.

NOTICE TO HORSE IMPORTERS

Gerald Powell, Commission Interpreter, **Nogent Le Roi, France**, will meet importers at any port in France or Belgium, and assist them to buy Percherons, Belgians, French Coach horses. All information about shipping, banking and pedigrees. Many years' experience; best references; correspondence solicited.

Rock Salt, \$10.00 ton.

Toronto Salt Works, 128 Adelaide St. E., G. J. CLIFF, MANAGER. Toronto, Ont.

Aberdeen-Angus Cattle—Stock all ages, good strains, at reasonable prices. Apply to **ANDREW DINSMORE**, "Grape Grange" Farm, Clarksburg, Ont.

FOREST VIEW I have lately purchased the **HEREFORDS!** Govenlock herd of Herefords, and have for sale sons and daughters of Toronto winners and champions; also Galloways of both sexes. **A. E. CAULFIELD**, Mount Forest, Ont., P. O. and Station.

ABERDEEN - ANGUS CATTLE
3 choice yearling bulls for sale at reasonable prices. Also females any age. Parties requiring such will get good value. Correspondence invited.
GEORGE DAVIS & SONS, ALTON, ONT

ABERDEEN - ANGUS
Will sell both sexes; fair prices. Come and see them before buying.
WALTER HALL, Drumbo station, Washington, Ont.

Weston, Ont., and Brandon, Man.

IMPORTING BARNES

J. B. HOGATE, Proprietor,
IMPORTER OF

Clydesdale and Percheron STALLIONS

Clydesdales sired by such noted sires as Hiawatha, Baron of Buchlyvie, Baron Winsome and others. Dams equally as good.

Percherons of the best blood of France.

I can sell you a ton stallion for less money than any man in the business. Don't buy undersized stallions and think you will breed draft geldings and mares from them. Come and see my ton horses and get prices. I will surprise you and save you plenty of money. Weston is reached by the G. T. R. and C.P.R. For further particulars write:

J. B. Hogate, Weston, Ont.

J. B. HOGATE, Weston, Ont.

To Buyers Looking for a Good Stallion:

I have imported **Percheron Stallions** for years. Always bought from the best breeders in France, and beg to call the attention of prospective buyers to the fact that I have won this year at Toronto first and second aged class sweepstakes and silver medal. Also at Ottawa Fair, first and third in aged class, first, second and third in 3-year-old class, sweepstakes and gold medal. Those horses are beautiful dapple-greys and blacks, three to four years old, weighing 1,800 to 2,000 lbs., with feet and legs that cannot be beat, beautiful heads and necks, the kind that good buyers are looking for. **I do not intend, and I will not allow, if I can help it, any one to give more quality breeding for a fixed price than I will.** Come to the home of the champion prizewinners and judge for yourself.

JOHN HAWTHORNE, Simcoe, Ontario.

The Great Canadian Annual Sale of SCOTCH SHORTHORNS

WILL BE HELD AT THE UNION STOCK-YARDS, TORONTO, ONT.
Wednesday and Thursday, the 8th and 9th February, 1911

MILLER BROS. will sell eight heifers that have not been equalled in any auction sale in the world. This is a broad statement, and it is not original with the writer, but it has been repeated again and again by the best Shorthorn authorities that have seen them. They have been many, and they consist of men recognized as being the foremost in both the United States and Canada. In the lot is the Junior Champion in Toronto last September, a Butterfly of the choicest breeding; a combination of Beauty and Blood such as the Shorthorn world has seldom seen. There are others with her that have to be examined with an almost unfriendly criticism before you can find a fault. In the lot there is a Dutch heifer, full sister to the record-priced heifer of 1910 in North America; this one is better. There is a Lavender heifer, all red, that shows that the greatest perfection may be found with the grandest of breeding. There is a red heifer, bred the same as the great champion, Meadow King, descended from that queen of Scotch cows, Crucifix, by Prowler; every feature shows that she comes of a Royal race. There is a Marr Madge, that reminds us again that the world has lost a prince of breeders in the late W. S. Marr; and there are others.

W. C. EDWARDS & CO. have furnished many of the best sires of the breed in past years, and the female descendants of the only Marquis of Zenda have proven the greatest producing cows of the age. More males of the same kind, to the number of 12, and heifers also of like character, numbering 13, will go in this sale, the whole output of 1909. Whether you are intimate with blood lines or not, you are safe to close your book and buy any one of them, and you may be assured of a pedigree without a fault, in the richest of Scotch blood. The cattle themselves will stand the most careful examination, and they have sent their brothers and sisters to make a name, so that they should be gathered in by those that want to keep in the front rank.

W. G. PETTIT & SONS have shown us before what they can do. This time they have excelled themselves, and they are proving that the use of Champion sires tells the story of success, that like begets like, and that no man can afford to use anything but the kind that he hopes to breed.

J. A. WATT is willing to stand by his contribution to the sale. They are of the best breeding that that grand old herd has contained; they are proof that pedigree means something. We have it here in the man as well as in the cattle, for this is not the first generation of the Watt family that has brought to bear on the solution of the breeding problem the greatest effort of which he was capable.

THE SIR GEORGE DRUMMOND ESTATE has to be closed, so far as the Shorthorn interests are concerned. The best of judgment, time and money without a limit, has been expended to get together the best. They are young, and have everything to commend them, but they will be spoken of, together with three more herds owned by the Millers, in another issue.

Just let me remind you that in this collection of 100 Shorthorns, there are 25 bulls and 75 females of the most valuable ages, and that from the lot could be selected a herd that would place the owner in the first rank, if it did not place him in a position by himself.

COL. GEO. P. BELLOWES, Maryville, Mo.; COL. CAREY M. JONES, Chicago, Ill., and CAPT. T. E. ROBSON, London, Ont., Auctioneers.

Write for catalogue to

ROBERT MILLER, STOUFFVILLE, ONTARIO,
Manager of Sale.

The Kemp Manure Spreader

Equipped with J. S. Kemp's Latest Improvement, the Graded, Reversible, Self-sharpening Flat-tooth Cylinder. One-third lighter in draft than any other spreader. Let us send you a booklet about it, free. Write to-day.

THE W. I. KEMP COMPANY, LIMITED
Stratford, Ontario.

OUR NEW IMPORTATION OF Clydesdale Stallions and Mares

Landed May 20th, consisting of three 4-year-old mares, four 3-year-olds, and two 2-year-olds, by such sires as Baron's Best, Baron Millar, Baron Cedric, Dryden, Benedict, and Dunure Blend, and a few stallions by such sires as Baron's Pride, Everlasting, Ruby Ride, and Majestic Baron. These are the best collection of stallions and mares we have ever had, full of quality and size. Phone connection. **R. NESS & SON, HOWICK, QUEBEC.**

OUR WINNINGS AT GUELPH

Were more than any other firm exhibiting. Champion imported mare. Champion Canadian stallion. Six firsts and many seconds and thirds, making a grand total of Twenty-one ribbons on eighteen horses exhibited. It is worth your while to go and see this bunch at:

Smith & Richardson's, Columbus, Ont.
MYRTLE, C. P. R. BROOKLIN, G. T. R. PHONE CONNECTION.

Mount Victoria Stock Farm, Hudson Heights, Quebec.
Champion Clydesdales and Hackneys. We have for sale 2 imp. Clydesdale stallions, by Pride of Blacon and British Chief; one imp. Hackney stallion, by Copper King. T. B. Macaulay, Proprietor. E. Watson, Manager.

NEW IMPORTATION OF CLYDESDALES
Superior breeding and quality, selected for the requirements of the Canadian trade—9 stallions, 6 fillies, 3 colts, including prizewinners and champions. This consignment will bear close inspection, and will be sold at moderate profit.
Phone connection. **GEORGE G. STEWART, Howick, Que.**

Imp. Clydesdale Stallions and Fillies
My 1910 importation of Clyde stallions and mares are in my stables at Mitchell. They are ideal in draft character, big in size, toppy, and have perfect underpinning, and bred from the best blood of the breed. Prices right.
Phone connection. **Wm. Coiquhoun, Mitchell, Ont.**

IMPORTED CLYDESDALES Our spring importation of fillies will be selected during the winter months for shipment end of May. Special orders will be filled on commission. Place your order with us now. Every one guaranteed as represented as to soundness and breeding. We have a few choice yearlings on hand which we will sell cheap if bought early.
Ormsby Grange Stock Farm, D. McEACHRAN, ORNSTOWN, P. QUE.

The Incubator.

(By Thos. W. Lee.)

Practically, the incubator marks the boundary between the conditions under which poultry-growing may be made profitable and those under which it cannot be made to pay actual expenses, normally at all events. Of course, it must be asserted on the strength of this, that at all times, and under all circumstances, it is impossible to make a profit out of poultry-raising without the help of an incubator. One man may have a particular strain of birds for which he can be sure of ready sale at fancy prices. Another may be located in a place where poultry products are sure to bring extravagant figures; while still another may have such a low cost of living, such a total lack of other employment and such an overflow of help in his own family, that he can make money out of his hens by the old-fashioned methods of poultry-production; but these will, after all, be found to be the exceptions which prove the truth of the general rule.

The incubator is to the poultry-raiser much what the horse-rake or the self-binder is to the hay and grain grower, and those who have given it anything like a fair trial will willingly bear testimony to this. One good-sized incubator will do the hatching, which, if done by hens, would take up the time that would represent the laying of over nineteen dozen eggs, worth, in round figures, from three and a half to four dollars at moderate market rates for good fresh eggs for table purposes, while if produced by high-class pure-bred fowls, they would be worth double or treble that sum at a low computation.

Let it be looked at from any viewpoint, and the employment of hens for hatching and brooding chicks is a waste of capital and energy.

In considering the incubator and its bearing on poultry-production, however, one must take into consideration that the use of the incubator and the brooder is the inevitable outcome of thought and system in poultry-raising, and this must of necessity be true for much. The poultry-raiser who even takes a serious view of the proposition cannot fail to be impressed at once with the questionableness of permitting the hens to do the hatching and brooding. This is the beginning of the introduction into poultry-raising, and it takes into its wake regulations and restrictions which mark the difference between profitable and unprofitable poultry-production.

The farmer who uses an incubator will likely not permit his hens to run all over the place and get beyond his observation and control. He cannot permit them to do so if he wants them to spend their time in laying eggs for the incubator instead of hatching whenever they feel like it. To keep them under observation, they should be held within a walk or yard where they will be fed and watered regularly, and where they will lay eggs in clean, sanitary nests, which have been carefully prepared for them.

It is not pretended that none have failed to use the incubator with satisfactory results right from the beginning, for they have made mistakes, as all human beings are liable to do at times, but if every allowance be made for these failures, and for many other failures which never have been made, the balance of profit would be found in favor of the incubator, as one of the most important appliances of a profit-producing poultry-plant.

TRADE TOPIC.

The Planet Jr. cultivator for such crops as corn, roots and garden crops, which is advertised in this paper by S. L. Allen & Co., Philadelphia, has made for itself an enviable reputation for strength of construction, light draft, convenience of changing from one width to another, efficiency and thoroughness of work, and general satisfaction. The Planet Jr. is made in sizes for hand and one or two horse power. Their disc seeders, drilling, covering and marking the next row, is a great success, while their wheel hoe for the final cultivation of garden crops and watering of plants, is a successful success in the home garden. A. W. Allen, Philadelphia, Pa., is the manufacturer of the Planet Jr. cultivator.

Fistula and Poll Evil

Any person, however inexperienced, can readily cure either disease with Fleming's **Fistula and Poll Evil Cure**—even bad old cases that skilled doctors have abandoned. Easy and simple; no cutting; just a little attention every fifth day—and your money refunded every fifth day. Cures most cases within thirty days, leaving the horse sound and smooth. All particulars given in

Fleming's Vest-Pocket Veterinary Adviser. Write us for a free copy. Ninety-six pages, covering more than a hundred veterinary subjects. Durable bound, indexed and illustrated. **FLEMING BROS., Chemists** 75 Church St., Toronto, Ontario.



"ELECTRO BALM"

CURES ECZEMA.

Also Piles, Burns, Scalds, Chapped Hands and Face.

Gentlemen use it after shaving. This Balm is handled by the best firms, and is highly recommended by those who have used it.

Write for Free Sample

ENCLOSE 2c. STAMP FOR POSTAGE

50c. a Box at all dealers or upon receipt of price from

THE ELECTRIC BEAN CHEMICAL CO.,
Ltd., OTTAWA.



Willow Bank Stock Farm SHORTHORNS AND LEICESTERS.

Herd established 1855; flock, 1848. The great Duthie-bred bull, Imp. Joy of Morning = 32070, and the Missie bull, Royal Star = 72502, heads my herd. Choice selections to offer at all times in both bulls and females.

JAMES DOUGLAS, CALEDONIA, ONTARIO.



Glenburn Stock Farm

A few nice Shorthorn calves of both sexes, Shropshire ram lambs, ewes and ewe lambs. Bred Rock cockerels of Hawkins' strain. **JOHN RACEY, Lennoxville, Quebec.**

4 Shorthorn Bulls

FOR SALE. 3 red and one roan; age from 12 to 16 months; sired by Imp. Lord Gordon (99434) = 70135, bred by A. Watson, Elgin, Scotland. **J. & W. RUSSELL, Richmond Hill, Ontario.**

SHORTHORN FEMALES

OF ALL AGES FOR SALE.

Prices to suit all kinds of customers. Have one red eleven-month-old bull left; a Clipper; price \$100.

J. T. GIBSON, DENFIELD, ONTARIO.

SHORTHORNS AND LEICESTERS.—Present of old heifers, also bull calves. Choice shearing rams and ram and ewe lambs. Show material. Write: **W. A. DOUGLAS, Tuscarora, Ont. Caledonia Station**

Imp. Scotch Shorthorns—When looking for Shorthorns, be sure to look me up. Young bulls fit for service, and females all ages; bred in the purple, and right good ones. **A. C. PETTIT Freeman, Ont.**

INVERNESS SHORTHORNS.

I can supply Shorthorns of all ages, with richest Scotch breeding and high-class individuality.

W. H. EASTERBROOK, Freeman, Ont.

Shorthorns and Yorkshires—A choice lot of young bulls and heifers at reasonable prices, from such noted families as Miss Ramsden, Crimson Flower, Lady Sarah and others. Also a fine lot of Improved Yorkshires, prizewinning stock. **ISRAEL GROFF, Elmira, Ont.**

All Skin Diseases Can be Directly Traced To BAD BLOOD.

Therefore to get rid of these skin diseases it is absolutely necessary that the blood should be thoroughly cleansed of the accumulated poisons, and for this purpose there is nothing to equal Burdock Blood Bitters.

This remedy has been on the market for over thirty-five years and when you use it you are not experimenting with some new and untried remedy.

Miss Stella Eichel, Maitland Forks, N.S., writes:—"I have been bothered with Salt Rheum on my hands for three years and it itched so I didn't know what to do. I tried everything but nothing seemed to be any good. I heard of Burdock Blood Bitters and bought two bottles of it, and now I am perfectly cured and have no Salt Rheum on my hands any more. I cannot speak too highly of Burdock Blood Bitters."

Manufactured only by The T. Milburn Co., Limited, Toronto, Ont.

Have on hand at the present time a choice lot of

Shorthorn Bulls

ready for service, mostly from imported stock, of such families as the Rosewoods, Butterflvs, Beautys and Duchess. One of the lot is a red imported bull of the choicest breeding. Come and see them during the holidays.

H. J. Davis, Woodstock, Ont.
G. T. R. and C. P. R. Long-distance Bell phone.

GEORGE D. FLETCHER,
BINKHAM P. O., ONT.

Offers a few choice Shorthorn Cows at bargain prices, brood cow stock bull, Benachie (imp.) = 69954 =, also Shorthorn heifer calves, Three Clydesdale fillies 1 and 2 years old; and Yorkshire sows ready to breed. **Free Shipping Station, C. P. R.**

Oakland Shorthorns—With 46 head of Scotch-bred Shorthorns to select from. We have eleven bulls, from 6 months up, most of them are beautiful roans, thick and mellow and out of good milking dams. Scotch Grey 72692 at head of herd. When in need, inspect our herd, or write.

JOHN ELDER & SON, Mensall, Ont.

"James, can I trust you with the key of the wine cellar?"
The New Butler (stiffly)—"Certainly, sir. I have seen all the labels."

STILL ANOTHER POSTMASTER TELLS

Why He Pins His Faith To
Dodd's Kidney Pills.

Doctors failed to cure his Bright's Disease, but he found relief in the Great Canadian Kidney Remedy.

Calm Point, Shelburne Co., N. C., Jan. 23.—(Special.)—Joshua Nickerson, postmaster here, is among the many in this neighborhood who tell of pains relieved and disease banished by Dodd's Kidney Pills.

"I am sixty-two years old," says the postmaster. "And I'll tell you why I think so highly of Dodd's Kidney Pills. Owing to a bad cold, my kidneys commenced to bother me, and the trouble developed into Backache, stiffness of the joints, and finally Bright's Disease."

"I was treated by a doctor, but that did not help me much, and it was six boxes of Dodd's Kidney Pills that brought me relief."

Everywhere you go in Canada, people tell you of the great work Dodd's Kidney Pills are doing, and everyone who tells you can give the reason why. That reason simply is that there is no case of Kidney Disease Dodd's Kidney Pills cannot cure. These people have tried them and found this true. Backache, Rheumatism, Dropsy, Diabetes, Lumbago, Headache and Bright's Disease, are some of the more serious troubles that Dodd's Kidney Pills always cure, simply because these are all either Kidney diseases or are caused by diseased kidneys.

GOSSIP.

EIGHT MONTHS CREDIT OFFER.
By sending in one new yearly subscription, accompanied by \$1.50, you may have the date on your own label advanced eight months.

The annual meeting of the Holstein-Friesian Association of Canada will be held in the Temple Building, Toronto, on February 9th, 1911.—G. W. Clemons, Secretary.

Two Holstein bulls, one 13 months, the other 11 months old, bred from high-class milking stock, are offered for sale by Charles Baird, Motherwell P. O., Ont. Inadvertently, these were referred to in a Gossip note in our January 12th issue, as Aberdeen-Angus.

John Cousins & Sons, Buena Vista Farm, Harriston, Ont., breeders of Oxford Down sheep, write: We have had a very successful year in Oxfords, thanks to "The Farmer's Advocate." Among our sales of rams were fourteen to Peter Arkell's Sons, Teeswater, and one each to W. H. Good, Listowel; S. Smith, Kurtzview; McEwan Bros., Wroxeter, and Mr. Wilhelm, Stratford, also three ewes to McEwan Bros., all from Imp. Hamptonian 136. Flock doing well, and prospect of good lamb crop.

Robert McEwen, of Byron, Ont., writes, in changing his advertisement, that his Southdown sheep are thriving this winter as never before. This he accounts for by their having plenty of exercise, and being kept in cool, well-ventilated barns. The thrift and health of the ewe flock speaks well for a good percentage of strong lambs this season, while plenty of turnips and alfalfa are giving the yearlings great growth. Mr. McEwen was particularly well pleased with his Canadian sales last year, and looks forward to an even better season this year. The Canadians seem to be realizing that a kind which produces champions and grand champions year after year, at the large fat-stock shows, must be valuable in improving their flocks.

AYRSHIRE BREEDERS' ANNUAL MEETING.

The annual meeting of the members of the Canadian Ayrshire Breeders' Association will be held in Hall No. 6, Monument National, 296 St. Lawrence Main Street, Montreal, Que., on Thursday, February 9th, at 10 o'clock a. m.

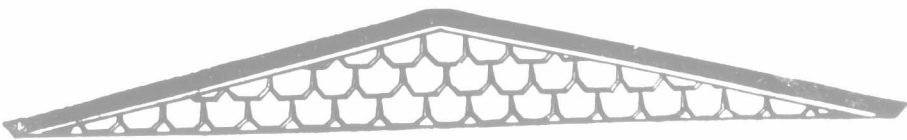
The Directors will meet in the parlors of the Queen's Hotel (corner of Windsor and St. James street), on Wednesday, February 8th, at 11 o'clock a. m.

On Friday, February 10th, the members are invited to visit Macdonald College, at Ste. Anne de Bellevue, where an interesting and profitable day may be spent, inspecting the College, the Ayrshire herd at the College farm, as well as other noted Ayrshire herds in the vicinity.

FIGHTING TWITCH GRASS.

The following item is communicated to "The Farmer's Advocate" by a Dufferin County farmer's son:

"Two years ago we had a piece of land very bad with twitch grass. There were about seven acres in the piece, and some patches were so bad the plow would not turn the soil right. We left this for our next year's root field. In the winter we put out between 150 and 175 loads of manure. In the spring this was spread and plowed down. We then disked and cultivated it, twice each way, shaking out the roots the cultivator trailed to the ends. After this it was cross-plowed. Then we took forks and dug out the thick patches, shook the most of the dirt from the roots, and hauled them off. Again it was cultivated twice, which brought the roots well to the top. After this, the beets and turnips were sown and potatoes planted. The ground was kept well scuffed and hoed all summer, and the roots got no chance to grow. The next spring I am sure there were no more than two handfuls of living roots to be found."



How "Eastlake" Steel Shingles will save you money



Talk No. 3

Economy In Laying

By

The Philosopher of
Metal Town

It's a one-man job laying "Eastlake" Shingles—that means a big reduction in first cost.

Most roofs can only be laid properly by practical roofers.

The laying of all roofings calls for the time and labor of two or three men—

Excepting "Eastlake" Metallic Shingles.

The "Eastlake" is easy to lay—takes just one quarter the time and labor of the four-lock shingles.

There is only one side-loek and gutter, which prevents all leaking and allows for ample expansion and contraction.

Then the "Eastlake" counter-sunk cleat, a special patented feature, holds the bottom of the shingles solidly in place, allows for no sifting in of rain or snow.

"Eastlake" Steel Shingles are absolutely weathertight.

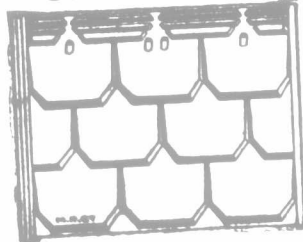
Roofs covered with "Eastlakes" 25 years ago are in perfect condition today. That is the only sure test of quality.

Read about these roofs—some may be in your neighborhood. Send for our illustrated booklet, "Eastlake Metallic Shingles." Write to-day.

N. B.—An "Eastlake" roof means clean rain water for household use.

We also manufacture Corrugated Iron, House and Barn Siding, Metallic Ceilings, Eavetrough, Conductor Pipe, Ventilators, etc.

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The Metallic Roofing Co. LIMITED

Toronto - Winnipeg A62

Farmers and Cattlemen, Read This!

When you cannot sell your export cattle at satisfactory prices at home, and wish to ship them to the Old Country markets, write or wire for steamer space, market and shipping information to **Donald Munro, Live-stock Forwarding Agent and Commission Salesman, 43 St. Sacramento Street, Montreal.** Load your cattle carefully, and bill them to me. I provide the necessary feed, insurance, etc., pay freight and all other expenses from shipping point, and give liberal cash advances on all consignments. Cattle are loaded on steamer under my personal supervision, and placed in charge of capable attendants for the ocean voyage. I represent the most reliable salesmen at all the different British markets. BUSINESS ESTABLISHED 1890. REFERENCES: THE MOLSONS BANK, MONTREAL.



ORCHARD GROVE HEREFORDS

Young bulls and one- and two-year-old heifers, of show-ring quality and most fashionable breeding; thick-fleshed, smooth and even.

L. O. CLIFFORD, Oshawa, Ont.

Maple Hall Shorthorns

Are bred on most fashionable Scotch lines, and are of high-class individuality. For sale are 6 young bulls from 6 to 10 months of age. A low, thick, sappy lot. Also 10 yearlings and 10 two-year-old heifers. Show material in this lot. Telephone connection. **DAVID BIRRELL & SON, GREENWOOD P. O., ONT., CLAREMONT STATION.**

Scotch Shorthorns

—Eight extra good young bulls, from 10 to 15 months old; 20 choice cows and heifers, forward in calf or with calves at foot. Prices reasonable. Inspection invited. Farms close to Burlington Junction, G. T. R.

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

SUNNY SLOPE SHORTHORNS

I breed Scotch Shorthorns exclusively. I have some choice young females safe in calf and some good young bulls for sale at present at prices you can pay. Long-distance phone.

A. EDWARD MEYER, BOX 378, GUELPH, ONT.



Maple Leaf Shorthorns and Hampshire Hogs

Offering for sale Shorthorn bulls and heifers and young Hampshire pigs.

PORTER BROS., APPLEBY P. O., BURLINGTON STA. Phone.

SPRINGHURST SHORTHORNS

Excellent lot of Scotch-bred bulls fit for service (bred for beef and milk), also heifers, for sale.

H. SMITH, HAY P. O., ONT.
FARM ADJOINS EXETER ON G. T. R.

Only Tools You Need
Simply a carpenter's claw-hammer and tinsmith's shears. Use galvanized wire nails that cost you eight cents a pound. No special skill required. Shingles lock together on all sides, making one solid seamless sheet of tough steel, without crevice or crack anywhere.

Makes the Only Roof Your Building Will Need in 100 Years

SURELY you can place the utmost faith in Oshawa Steel Shingles when we give you a written, legally-binding guarantee that an Oshawa-shingled roof will be a good roof for twenty-five years. I show you this guarantee in my book. Get my book please and read all about it. See how thoroughly it protects you.

G. H. Pedlar

Here's the ONLY Right Roof for You

I REFER to my Oshawa Steel Shingles. Reckon it all up and see if you don't agree with me. A roof that is one big seamless sheet of 28 gauge steel, smoothly and thickly galvanized by the Pedlar process of rust-proofing. A roof that cannot rust, will not gather moisture on underside, stay a good roof for a hundred years at a cost of less than five cents a year. A roof that makes your building safe against both fire and lightning. A roof that makes your building warmer in winter, cooler in summer. A roof that costs no more than common wood shingles to put on, and much less to keep on. A roof that needs no painting, no patching, no tinkering or repairs for at least twenty-five years—or you get a new roof free. The only roof that is guaranteed in writing. Certainly a roof like this is the only right roof for you. You cannot be sure of as much down-right roof value from any other kind of roof you can buy. The question is: Can you afford to risk your money in any other kind of roof.

The ONLY Roof that is Guaranteed in Writing

I claim a good deal for an Oshawa-shingled roof. Almost too much to be true, some folks think. So do makers of other roofs. But note this difference. I give you a written guarantee that's good for a new roof any time within twenty-five years if any Oshawa-shingled roof fails to make good everything I promise. That means that its cost when you put it on is the only cost for the next twenty-five years. Will the "other fellow" give you such a guarantee? I don't know any one who would. They want you to take the risk. They talk very confidently—and promise, yes indeed. But can you get their promises down in writing and signed—like mine are. That's the only way you can be positively sure of a roof that will be

PEDLARIZE All Your Buildings—Inside and Out

BY "Pedlarizing" I mean doing for the whole building what Oshawa Steel Shingles do for the roof. I make other kinds of sheet metal building materials—for ceilings, side walls, outside—that make your whole building more fire-proof, more sanitary, more beautiful, more substantial. You should know about them. May I send you a booklet and pictures that tell the whole story? It's free. Just ask me to tell you about "Pedlarizing."

Best Protection against Both Fire and Lightning

This fact alone is reason enough for putting my Oshawa Shingles on the next building you roof. Lightning causes over 40% of all fire-damage on farms. Destroys about 7,000 farm buildings each year on this continent. In one year killed 623 human beings and 4,500 head of cattle—most of them housed in wood-shingled buildings. My Oshawa Steel Shingles would save all this terrible loss. Because they make a lightning-proof roof. They are better protection than any number of lightning rods—better than the best and cheapest lightning insurance policy. Best fire-protection, too. The saving in fire-insurance premiums alone pays the whole cost of an Oshawa-shingled roof in a very little while. Your insurance agent will tell you.

Good for 25 years or an Entirely New Roof Free

My guarantee, remember, is a written one, in proper legal form, and is backed by 50 years of honorable dealing, and over \$300,000 of invested capital, the biggest business of its kind in the British Empire. It is your roof-insurance for twenty-five years. When you consider that no other roofing is guaranteed at all, even though you pay as much for it as you pay for my Oshawa Steel Shingles, there's no doubt about which roof you should buy.

First Cost no More than Roofs You Think Cheap

Of course you don't want to pay any more than you have to for a good roof. But for the amount you have to pay you ought to get the best roof that will cost the least to keep on. And Oshawa Steel Shingles make the only roof you can be sure will end your roof expense once you get it on. My written guarantee settles that. Figure it out any way you like. You'll find an Oshawa-shingled roof as cheap to begin with, and far cheaper in the long run, than any other roof you can buy.

Send for My Free Book "Roofing Right"

Then you'll have all the facts about this weather-proof, rust-proof, rot-proof, fire-proof, lightning-proof roof, which needs no painting or patching for the biggest part of your lifetime. By reading my book you may save yourself considerable money and a lot of bother. It is free. Do write for it—right away.

Write to Address Nearest You.

Ask for "Roofing Right" Booklet No. 16

The PEDLAR PEOPLE of Oshawa Established 1861

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16 Prince St.
315 A | ST JOHN
42-46 Prince William St.
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76 Lombard St.
ADDRESS OUR NEAREST WAREHOUSE | QUEBEC
123 Rue de la Paix
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1901 Railway St. S. | MONTREAL
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10 Scotch Shorthorn Bulls 10
FROM 10 TO 14 MONTHS OLD

The Princess Royal, Secret, Bessie, Village Maid families are represented in lot. First-class herd headers and farmers' bulls for getting market-topping steers. Prices very reasonable.

JOHN MILLER, BROUGHAM, ONT.
Claremont Station, C. P. R., three miles.

Maple Lodge Stock Farm
1854-1910.

A lot of choice young SHORTHORN BULLS, and a splendid lot of LEICESTER rams and ewes for sale.

A. W. Smith, Maple Lodge, Ont.

Spring Valley SHORTHORNS

We have for sale Newton Ringleader (imp.)—73783. A good bull, with first-class breeding. Also a Canadian-bred 15-months-old bull of the choicest quality. Phone connection.

Kyle Bros., Ayr, Ont.

Woodholme Shorthorns

are of the richest Scotch breeding, modern in type and quality. For sale: One and two-year-old heifers, several young bulls, thick-fleshed, low-down and mellow.

G. M. FORSYTH, Claremont, Ont.
100 yards from station. Phone connection.

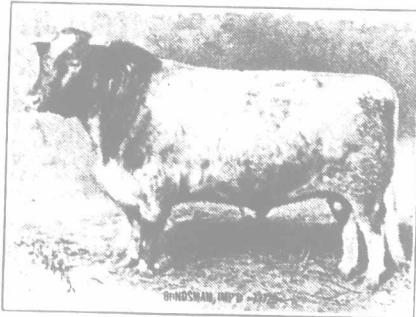
HIGH-CLASS SHORTHORNS

I have on hand young bulls and heifers of high-class show type, pure Scotch and Scotch-topped, sired by that sire of champions, Mildred's Royal. If you want a show bull or heifer, write me.

GEO. GIER, Grand Valley P. O. and station, also Waldemar station.

4 SHORTHORNS (FEMALES) for sale, with size and quality. Two thick, fleshy young bulls, from good milking dams. Prices moderate.

Stewart M. Graham, Port Perry, Ont.



SCOTCH SHORTHORNS
100 HEAD IN HERD.

Headed by the imported bulls: Bandsman, a half-brother to the \$6,500 Count Crystal, the highest priced call on record in Scotland; and Village Duke, a son of Villager, winner of 18 first and special prizes in Scotland. For sale: 12 young bulls of the choicest breeding, and 40 young cows and heifers. All of noted Scotch breeding. In call to our stock bulls.

Farm 1/4 Mile from Burlington Jct. Sta.
Long-distance phone.
Mitchell Bros., Burlington, Ont.



H. CARGILL & SON

have to offer at the present moment an exceptionally good lot of young bulls, which combine all the requisites necessary for the making of superior stock sires, viz.: Quality, Size, Conformation and Breeding. If interested, come and make your selection early. Catalogue on application.

John Clancy, Manager, Cargill, Ontario.

Elmhurst Scotch Shorthorns and Large English Berkshires

For Sale: Five young bulls, reds and roans, fashionably bred and quality as well. Young sows for March litters.

H. M. Vanderlip, Cainsville, Ontario, P. O. and Station.
Also Langford Station. B. H. Radial in sight of farm. Bell phone.

SALEM STOCK FARM

Young bulls fit to head the best herds; are priced reasonably. Can suit you in SCOTCH SHORTHORNS of any age.

J. A. WATT, SALEM, ONT.

PLEASANT VALLEY SHORTHORNS

For Sale: 1 red, 1 roan, 2-year-old show bulls. Several good bull calves, also some yearling heifers. Some show dispositions among them. If interested, write or call and see us before buying.

GEO. AMOS & SONS, MOFFAT, ONTARIO
Farm 11 miles east CITY of Guelph on C. P. R. line from farm.

When Writing Advertisers, Please Mention "The Farmer's Advocate."

Opportunities and Prospects in Essex.

While the much-exploited clay belt of New Ontario and the prairie lands of the West are inviting investigation and attracting attention on the part of agriculturists from the older-settled portions of our Dominion, as well as foreign lands, the fact is often overlooked that in Western and South-western Ontario are large quantities of choicest arable lands, uncultivated, offering splendid opportunities for acquiring comfortable homes to those whose minds are being directed to more distant localities.

Of no part in Canada can this be more truly and emphatically stated than of the peninsula joining the county of Essex. This portion of Ontario, so much maligned, misrepresented, and misunderstood in the past, is slowly but surely pushing its way forward, and the day is not far distant when Essex will assume its rightful position in the vanguard of those counties composing the most fertile agricultural district of Canada.

For many years this section was looked upon by farmers in Eastern Canada as a monstrous black-ash and elm swamp—a suitable abode for aquatic animals, reptiles and birds, whose wealth consisted not in fertile soil, but forest products, ducks, fish and frogs. It was also believed by many to be the secret lurking-place of that most undesirable disease, malaria.

The prejudice thus created has never been removed in many minds, and still stands as a barrier against genuine investigation. Its being out of a line of travel pursued by a majority of Canadian agriculturists, has also hindered in the acquirement of knowledge regarding its nature and possibilities.

Another serious detriment was the characteristics displayed by many early settlers. While other counties were receiving as citizens the sturdy sons of the British Isles, and strong, thrifty scions from Scandinavian or Teutonic stock, Essex was receiving its quota from widely divergent and often most undesirable sources. The population is now and has always been cosmopolitan in nature, an admixture of almost every nationality represented upon the American continent. The existence and presence of undesirable elements in many parts of the peninsula hindered for a time the incoming of a more progressive class. Such conditions are rapidly disappearing, and all will soon be eliminated, while greater inducements are held forth to prospective settlers. So far as the writer's knowledge extends, no county in Canada possesses brighter prospects or presents greater opportunities to the honest, intelligent, labor-loving man.

The natural situation is most favorable to agricultural pursuits. In a latitude similar to Southern France or Northern Italy, almost surrounded by water, possessing climatic conditions suitable to the raising of grains, fruits and vegetables, equalled in this respect by very few sections in North America, and none in Canada, summer season is much longer than in counties east or north. There is also greater freedom—in fact, almost entire exemption—from summer frosts, which frequently cause serious damage in more central locations. Atmospheric conditions differ decidedly from even adjoining neighborhoods, thus ensuring greater immunity from devastating storms of wind, hail or rain. Winters are milder than in northern latitudes; snowfall is light, rarely exceeding a few inches. Severe ice storms so menacing to fruit-growers further east, are almost unknown, as are also those prevailing winds which make residing in our Prairie Provinces oftentimes disagreeable. As to the fertility, opinions formed by a casual observer, globe-trotter or average traveller in a limited express are not always correct, and often misleading. Continuous residence speedily dispels any doubt as to its fertility. The wonderful self-productiveness is evident, whether cultivated or in a wild state.

The soil is a deep, rich, alluvial deposit, covered in the northern part by several inches of decomposed matter, the accumulation of forest growth and decay. In the southern part, a warm, sharp, sandy loam, varying in depth from a few inches to several feet, covers the rich clay

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No Machine is Used as Often

on a farm as a Litter Carrier. Every day in the winter, and generally every day in the summer, you would use it. Think of the amount of time and labor it would save you!



Send us a plan of your barn, and write for catalogue, prices, etc., to:
Louden Machinery Co., Guelph, Ont.
Manufacturers of Barn and Stable Equipments.

Bone Spavin

No matter how old the blemish, how lame the horse, or how many doctors have tried and failed, use
Fleming's Spavin and Ringbone Paste
Use it under our guarantee—your money refunded if it doesn't make the horse go sound. Most cures cured by a single 25-minute application—occasionally two required. Cures Bone Spavin, Ringbone and Sidebone, new and old cases alike. Write for detailed information and a free copy of
Fleming's Vest-Pocket Veterinary Adviser
Ninety-six pages, durably bound, indexed and illustrated. Covers over one hundred veterinary subjects. Read this book before you treat any kind of lameness in horses.
FLEMING BROS., Chemists
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WHY USE A HOLSTEIN BULL?

No other bull will cross so well with the farmer's grade cows, giving him large, robust offspring that will grow strong and vigorous, and develop into paying dairy cows, the kind that give MILK. We have them for sale from dams that are producers. Write us, or come and see.

MONRO & LAWLESS,
Elmdale Farms, Thorold, Ontario

2 Holstein Bulls 2 FOR SALE.

One is 13 months, the other 10 months; from high-class milkers. Prices reasonable. Write, or come and see them. St. Mary's, C. P. R. and G. T. R.

Charles Baird, Motherwell, Ontario.

Riverside Holsteins

Choice bulls 6 to 9 months old, sired by Sir Pieterje Posch De Boer and Prince De Kel Posch. Latter is the only son of champion cow, dairy test, Guelph, 1908 and 1909, and out of R. of M. dams.

J. W. Richardson, Caledonia, Ont.
Haldimand Co. Long-distance phone.

Centre and Hill View Holsteins

We have added to head our herd a young bull from King Segis, world-record sire, and a 26-lb. 4-year-old dam. Have 2 bulls born in January from Bonheur Statesman. Their grandams have over 21 lbs. butter in 7 days. Also younger ones from good A. R. O. dams. These will be sold right, considering their backing.

P. D. Ede, Oxford Centre, Woodstock Stn
LONG-DISTANCE TELEPHONE.

HOLSTEINS AND YORKSHIRES

R. HONEY, Brickley, Ont.
Northumberland Co.

Offers a choice lot of boars and sows ready to mate; also orders taken for the coming crop of calves from Prince Posch Calamity Bliese and R.O.P. cows.

THE MAPLES HOLSTEIN HERD

Everything of milking age in the Record-of-Merit. Nothing for sale at present but a choice lot of bull calves sired by King Posch De Kol. Write for prices, description and pedigree.

Walburn Rivers, Folders, Ontario

Homewood Holsteins

Headed by Grace Fayne and Sir Colantha. His sister and sire's dam each made over 35 lbs. butter in 7 days nearer related to the two greatest cows than any bull in Canada. Young bulls and cows in calf by him for sale. Prices right.

M. L. HALEY, M. H. HALEY,
Springford, Ont.

Lake View Dairy Farm

I have several of noted Franzy breeding, also daughters of Sir Admiral Ormsby.

HOLSTEINS!
by first offering: Bull calves and heifers.
W. F. BELL, BRITANNIA BAY, ONTARIO

subsoil. Its inexhaustible nature may be understood when it is known that earth excavated several feet beneath the surface, manifests a superlative prodigality in cereal-producing powers, excelling the apparently richer soil of the upper strata. In no part of this most resourceful British colony has the writer witnessed such ample remuneration awarded the husbandman for labor expended.

Experiments on a small scale have demonstrated something of what may be rendered possible through the application of up-to-date methods in farming. The adoption of a more economical, beneficial and systematic drainage, coupled with a constant, continuous and careful system of cultivation during the season of growth, made possible by modern machinery, may increase the fertility of the soil to more than its present productive capacity. No prophecy of future greatness is safe. To no man has yet been revealed the conditions which will repay the efforts of humble soil-tillers a decade hence. But many have dreams of a day not far distant when Essex will have outstripped all competitors for prominence in soil products.

The introduction and proper manipulation of modern machinery and methods in agricultural pursuits, will not only increase the abundance of farm products, but make possible the maintenance of a much larger population.

Therefore, the tendency to smaller farms, a result of better farming, is growing, thus presenting ample opportunities for a great multitude of agriculturists desiring to acquire comfortable homes and remunerative industries, without enduring the hardships entailed upon settlers in New Ontario, Manitoba, Saskatchewan, Alberta or British Columbia.

In no part of Canada can a greater variety of grains, fruits, flowers and vegetables be produced. The list includes all that are common to temperate zones, as well as many of a semi-tropical nature. The quantity and quality of grains compare favorably with any other part of the world. Both spring and fall wheat—but especially the latter—can be grown successfully. Oats, peas, barley, etc., are grown to considerable extent, but corn forms the staple and altogether the most profitable grain crop.

South-western Ontario and Essex county especially is—so far as Canada is concerned—the home of Indian corn. The immense yields—often 400 to 600 bushels from one planted—and the fact that both grain and fodder are enjoyed, proving highly beneficial to all classes of stock, places it in the lead amongst the numerous grains. Corn-production has made possible a superlative industry, viz., hog-raising. This combination opens up to those engaged in mixed farming a most profitable enterprise.

This industry is still in its initial stage, but is rapidly approaching a date when it may conveniently lay aside its embryonic habiliments. The lands best suited to corn-growing are found in northern and central sections of the county, where there are large portions still uncultivated. What is known as the Garden of Canada borders on Lake Erie, extending northward from four to six miles. Here, all manner of fruits, vegetables and flowers, are produced in abundance and profusion. Through the avenues of communication, man's sensual nature receives the soothing effects created by the transmissions caused through contact with most beautiful flowers, delicate perfumes and luscious fruits. Flowers, from the humble daisy and pansy, to the gigantic magnolia, luxuriate. Fruit orchards of apples, pears, plums, quinces and peaches, greet the wayfarer on every hand; either dotted in a profusion of delicately-tinted blossom, or laden with a wealth of products sufficient to satisfy the most enthusiastic pomologist.

It is, verily, the home of the horticulturist, since vegetables and small fruits may, through careful scientific cultivation, be produced with unparalleled success. The possessor of five or ten acres of such garden land is independent, as he may secure, by careful oversight, from \$100 to \$200 per acre annually.

Especially is this true of Point Pelee and Pelee Island, the former being a part of the county extending southward into Lake Erie, while the latter, an island containing about 11,000 acres, lies a few miles south and west of its extreme point. Point Pelee, owing to the reclaiming of a



The Feed That Makes The Cream

Livingston's Oil Cake is the cheapest feed for cows—cheaper than corn, shorts or even hay. Because it actually increases the richness of cream—and also increases the amount of butter that you get out of the milk.

Test your cows before and after feeding Livingston's Oil Cake for a month—and your "butter money" will show its economy.

Livingston's Oil Cakes contain from 8 to 12% of pure Linseed Oil—are soft enough to break into small bits—and are completely and easily digested. Write us for sample and prices if your dealer cannot supply you.

Dominion Linseed Oil Co., Limited, 31 Mill Street, Montreal.

Livingston's Dairy Oil Cake

Write the Dominion Linseed Oil Company, Limited, Baden, Ontario.

LAKEVIEW HOLSTEINS

Bull calf born April 2nd, 1910; mostly white; sire Count Hengerveld Payne De Kol, who is a brother of Grace Fayne 2nd's Homestead—35.55 lbs. butter in 7 days, and of De Kol Creamelle 10,017 lbs. milk in 100 days. The dam of this calf is sired by De Kol Hengerveld Bruce, who has 21 A. R. O. daughters, one of which has a 30-lb. record, and 10 of which have records over 20 lbs. Several others for sale. Write for particulars.

E. F. OSLER, BRONTE, ONTARIO

Holstein Bulls

From high-class, officially-tested cows. Ready for service. Also bull calves.

R. F. Hicks, Newton Brook, Ont., York Co. Toronto Shipping Point.

Holsteins and Tamworths for Sale—Seven bulls, boars fit for service; sows bred, pigs, either sexes, from 6 weeks up. Sixty-five to select from. Phone connection, via Cobourg.

BERTRAM HOSKIN, The Gully P.O.

Holstein Cattle—The most profitable dairy breed. Illustrated descriptive booklets free. **Holstein-Friesian Ass'n of America, F. L. HOUGHTON, Secy, Box 127, Brattleboro, Vt.**

HOLSTEINS AND YORKSHIRES

We own the champion two-year-old of the world for yearly production. We own the champion Canadian-bred three-year-old and champion cow in the Record of Merit. We own the sire and dam of champion of the world and the champion three-year-old. We are breeding 30 heifers to this great bull, which are for sale. Also bull calves from high-record cows, and one two-year-old bull, dam's record over 27 pounds butter in 7 days. Trains met by appointment.

D. C. FLATT & SON, Millgrove, Ont.
Farm phone 2471, Hamilton.

Silver Creek Holsteins—Official records range from 13 lbs. for 2-year-olds to 22 lbs. for mature cows. Stock bull, King Payne Segis Clothilde, his 7 nearest dams records average 27 lbs. For sale are young stock of both sexes, sired by bull with high official backing and out of Record cows.

A. H. TEEPLE, Currie's P.O., Ont., Woodstock, Sta. Phone connection.

Holstein Bulls!

Maple Grove offers a few richly-bred bulls fit for service. For particulars and breeding write:

H. BOLLERT, CASSEL, ONT.

ELMWOOD HOLSTEINS. Two choicely bred bulls 17 mos. old, grandsons of Sarcastic Lad; sired by a son of Iantha Posch, whose dam's record is 27½ lbs. butter in 7 days. Young cows to freshen during March and April. Prices right.

E. D. George & Sons, Putnam, Ontario.

AYRSHIRES

We are now selecting in Scotland our 1911 importation of Ayrshires. Over 20 already secured as a result of our visit in Oct. Write us about young bulls and females. Deepest milking strains. Reasonable prices. Home offering: A few very choice bull calves. Two fit for service.

ROBT. HUNTER & SONS, Maxville, Ont.

Ayrshires and Yorkshires!

We still have a few choice individuals of almost any age on hand in Ayrshires, and are always ready to price any. Other breeders in this section. Bull calves from Record of Performance cows. A few young Yorkshires on hand.

Long-distance phone.

ALEX. HUME & CO., MENIE, ONT.

Ayrshires

Bull calves, from 4 months to 9 months, from imported sire and Record of Performance dams. Records 50 to 63 pounds per day.

N. Dymont, R. R. No. 2, Hamilton, Ont.

HILLCREST AYRSHIRES.—Bred for production and large teats. Record of Performance work a specialty. Fifty head to select from. Prices right.

FRANK HARRIS, Mount Elgin, Ont.

SPRINGBANK AYRSHIRES

Canada's leading herd of Record-of-Performance Ayrshires. Big records, big cattle, big udders and big teats. Present offering: Four spring heifer calves. All good ones, with good breeding. Are now booking orders for calves of either sex.

A. S. TURNER & SON, RYCKMAN'S CORNERS, ONTARIO.
Three miles south of Hamilton.

STONEHOUSE Ayrshires

THIRTY-SIX HEAD TO SELECT FROM. All imported or out of imported sire and dam. For sale: Females of all ages. Am now booking orders for bull calves.

HECTOR GORDON, HOWICK, QUE.

BUSINESS-BRED AYRSHIRES

My herd of Ayrshires have for generations been bred for milk production. They are nearly all in the R.O.P. My present offering is several young bulls most richly bred. **James Begg, R. R. No. 1, St. Thomas, Ont.** Bell phone.

Ayrshire Cattle

of choicest producing strains. Record-of-Performance work a specialty. Good udders, good teats. 20 large Toulouse geese, \$5.00 per pair.

WM. THORN, Trout Run Stock Farm.
Long-distance phone. **Lynedoch, Ontario**

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Cheap Enough For A Barn— Fine Enough For A Cathedral

"The Roof That's Good"



For any permanent structure, whatever its cost or use, the modern metal shingle is the **ONLY** roofing worth any man's consideration. For it, and it alone, has every good quality a roof should have, and it, and it alone of all roofings, lacks every bad quality. But there are degrees of goodness in metal shingles. You must choose wisely. You will not go wrong if you roof with



Preston Shingles are made from heavy and imperishable metal, thickly and smoothly galvanized with a coating that contains 98 per cent. of pure zinc. Thus they easily pass the rigid bending and acid tests of the British Government. That insures them against rust, and their buyer against roof-troubles. No other metal shingle is made so well, and none will last longer. Ask us what this test is. Preston Safe-Lock Shingles make a roof that is absolutely proof against fire—a roof that the wind cannot rack a little bit—a roof that moisture cannot get

through at all. For these are the shingles, and these alone, which positively **LOCK ON EVERY EDGE** with a grip that is so strong and tight it almost makes nailing needless. Next to the galvanizing—which is the most vital thing about a metal shingle—the lock is a point you should most carefully look into before you invest. Let us send you a "Preston Junior"—a little shingle imitating closely the construction of **OUR REGULAR OUTPUT**. Study it, and you will admire the patented Safe-Lock that only we can use. Ask for it.

This Is The Roof That Meets Every Need

Preston Safe-Lock Shingles are easily laid. No special skill or unusual tools are necessary. Fewer nails are needed than other metal shingles demand—the safe-lock cannot spring nor the shingles warp or twist. Every nailhead is covered. Therefore these roofs never leak because rust simply cannot get at the nails. Preston Safe-Lock Shingles are sold with the warranty that if properly put on, according to simple directions **LIGHTNING CANNOT HARM THE ROOF WITHIN TEN YEARS**. These roofs are easily good for fifty years' reliable roof-service. Thus they are the cheapest good roofs money

can buy. Wood shingles actually cost—in cost-per-year—many times our price. "Ready" roofings are a wretched make-shift, and their cost per year is downright extravagant. Don't waste your money on a roof that can't last. You should send for, and read, before you roof anew, a truth-telling **FREE Costs Little** book that many have read to their profit and satisfaction. It tells about **EVERY** kind of roofing. It goes into the subject fully and in plain words. You would be willing to pay for it after you've read it—but you are welcome to it for nothing. To-day would be a good day to write and ask for it. Use a postcard if you wish. Address—

W. Ralph **Metal Shingle & Siding Co., Limited**
Queen Street Factory, Preston, Canada

GOSSIP.

THE OUTLOOK FOR 1911.
(By M. B. D. Owings, of the L. H. C. Service Bureau.)

The year just closed will be memorable for the enormous value of its agricultural products. Never before in the world's history has the United States produced farm products to the value of \$8,924,000,000 in one year, which is the value of the principal products of this country. As reported by the Service Bureau, this aggregate is 25 per cent. above the value of the crops at the close of eleven years of normal production and this prosperity is distributed practically nation-wide, in every crop and every district. The portions of the Northwest supported in bounteous harvests are the property of the farmers, and as a result, and as a result,

part, at least, trade expansion in 1910 was larger than in any other year.

But the record of business for 1910 is now closed, and we are concerned more particularly with the new year. We refer in passing to the crop results in 1910 only because of the fact that the prosperity of the farming community furnishes a most substantial reason for the expectation that the new year may be a very prosperous one for the people of the United States.

Much has been said of late concerning the "lock-to-the-farm" movement. It is a movement of a very different character from the "lock-to-the-city" movement which has been so popular in the past. It is a movement which is based upon the fact that the farmer is producing more than he can consume, and that he is producing more than he can sell. It is a movement which is based upon the fact that the farmer is producing more than he can consume, and that he is producing more than he can sell.

Many of the State agricultural colleges are sending their professors out giving lectures and demonstrations, directing attention to the importance of selecting good seed, the best methods of tillage, and the proper steps to take to maintain and increase the fertility of the soil, and this work is supplemented with educational booklets and special articles prepared and sent out by the leading manufacturers.

The effect of this is seen in a more general use of the most modern tillage implements, traction engines, for deep plowing to get beneath the earth that has been compacted by years of plowing a uniform depth, and thus increasing the depth of the loose soil and its capacity to hold moisture, corn, timothy, hay, clover, and stock feed for six months or more, and no means for profit and other uses on the farm, which the farmer is realizing in a larger way than

value of these machines, and the bumper crops give him the means with which to procure them. The profitable crops also emphasize the necessity for the use of the best farming implements and machines in order that the largest returns possible may be realized from each acre.

We have also heard considerable of late about the "lock-to-the-farm" movement from the big cities. Many who have found the struggle too strenuous in the overcrowded centers of population, and desire the freedom and independence of the farmer, are returning to the simple life. A few of these make for a larger and more certain demand for the commodities of the farm, and give a substantial foundation for the belief that the demand for farm products in 1911 should be considerably more active than in any previous year.

There is no such thing as a free lunch. From follow



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Have Doubled Their Profits By



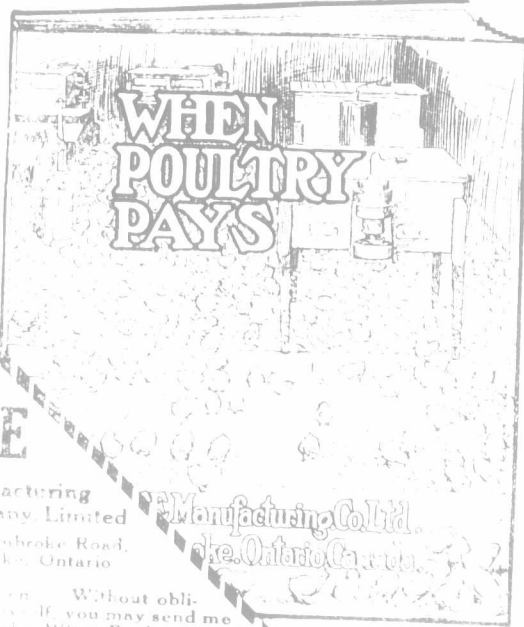
THE PEERLESS WAY

What these poultrymen have done you can do—no matter in what part of Canada you live; you can raise the crop that never fails—the crop that knows no bad years! If you have never kept poultry do not let that deter you; you will have fewer formed habits to overcome and will be ready to let The Peerless Way lead you to success. Or if you have been keeping poultry in a haphazard way, The Peerless Way will show you how to systematize your enterprise into a real money-maker. Even if you have made a failure of poultry-raising—even though you be discouraged—disinclined ever to consider poultry-raising again—investigate The Peerless Way for yourself and study the guarantee that it has to offer you; for, let us say this, whether you are simply a beginner, whether poultry forms only an incidental part of your farm work, whether you are already in poultry-raising as a business, The Peerless Way affords you a real way to increase the profits. Consider this very carefully. Then read every word of what follows and send for our big FREE book entitled "When Poultry Pays."

FREE This Book With The Complete Story Of The Peerless Way

Simply fill out the coupon and send it to us. Then when you get the book, read it at least twice. You will find it packed full of facts about raising poultry for profit. There is no clever writing nor empty theory about the book, "When Poultry Pays"; but it certainly does clear up a whole host of problems that have long and often puzzled practical poultrymen. Let this book put its plain, terse facts before you—let it tell you **why** and **how** you can put The Peerless Way to work to make money for you. Do not put it off—there is no time like the present for increasing your knowledge.

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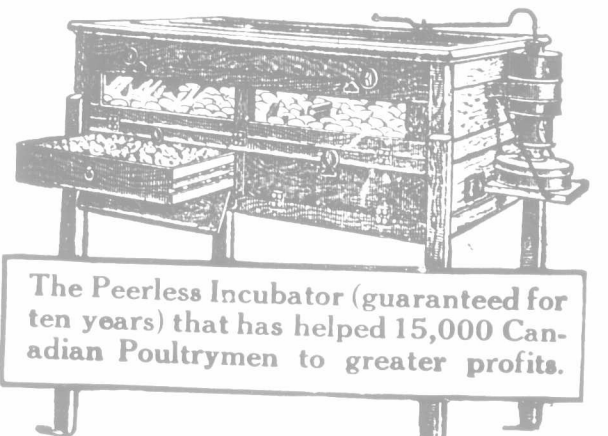
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Knowledge Is More Essential Than Money

Very little money will start you right in profitable poultry-raising—if you know how to go about the business. And The Peerless Way will show you exactly what you have to do and how you have to do it to make money. The Peerless Way is more than merely a system for raising poultry; it is a system for raising **at a profit!** The knowledge that The Peerless Way offers you is so explicit that a child could not misunderstand it—it explains everything—and if, beyond that, some unusual problem does arise, our Poultry Advisory Board is at your service without charge to consider your case individually and to write you personally.

Poultry Raising is the Profitable Branch of Agriculture

Given the same care, time and attention as any other branch of agricultural work, there is no department that can be made to yield such handsome returns for small investment. We know this, 15,000 Canadian poultrymen, working with our co-operation, have proven it for us. It is one thing merely to "keep poultry" and quite another to get every last cent of profit out of the work. The profits are in the knowledge you possess—know how to proceed, in the first place, and that knowledge of **how to market** your output. The Peerless Way will explain



The Peerless Incubator (guaranteed for ten years) that has helped 15,000 Canadian Poultrymen to greater profits.

both these essential points—will show you what to do and how to do it—and then, through our co-operative marketing plan, will take care of all the eggs and poultry you can produce and at highest market prices. When you get our book, read the letters we have printed in it from hundreds of followers of The Peerless Way in every part of the Dominion—letters from practical poultrymen who have never been able to do by any method what they have done by The Peerless Way. Get the book—just send the coupon—that brings it.

Let Us Show You How To Market—Right

Let us explain what we mean by Co-operative Marketing—let us tell you about the method that has been proven by 15,000 poultrymen who command higher prices than the old way of selling poultry and eggs could ever have given them. Let us explain to you how to get all the profits that rightfully belong to you. Write us for further information on this most of successful poultry raising. Let us tell you how it has been worked out, how it has been tested, and how it has been proven, let us tell you why it is the only way that successfully meets Canadian climatic conditions—why there is no farm anywhere in Canada where poultry would not pay better than it does now. Our methods are so simple that even a schoolboy could not fail to understand them. It is not a better investment than any other you can make. Send for the book.

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