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VOL. XLVI.

LONDON, ONTARIO, JANUARY 19, 1911.

No. 956

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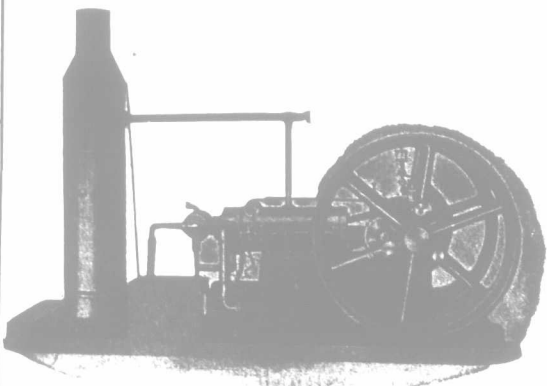
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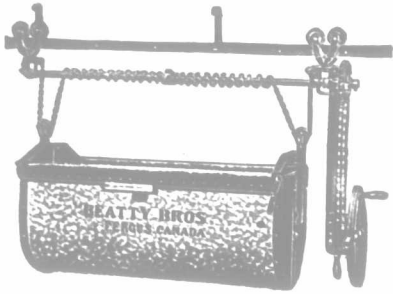
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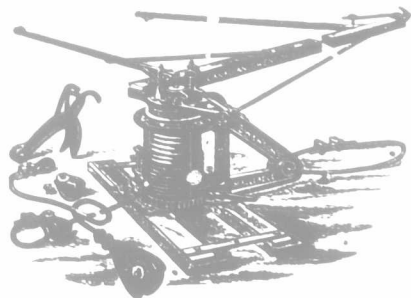
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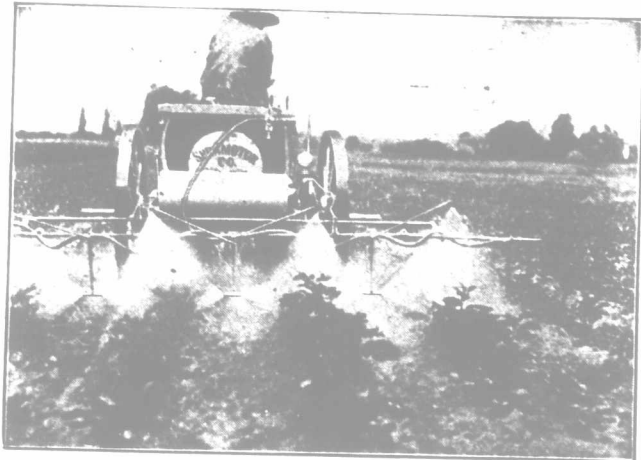
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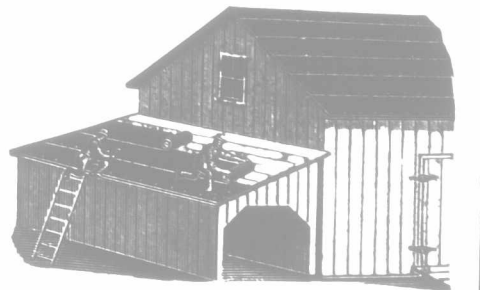


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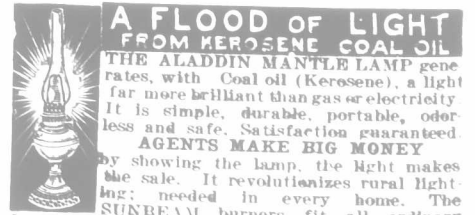
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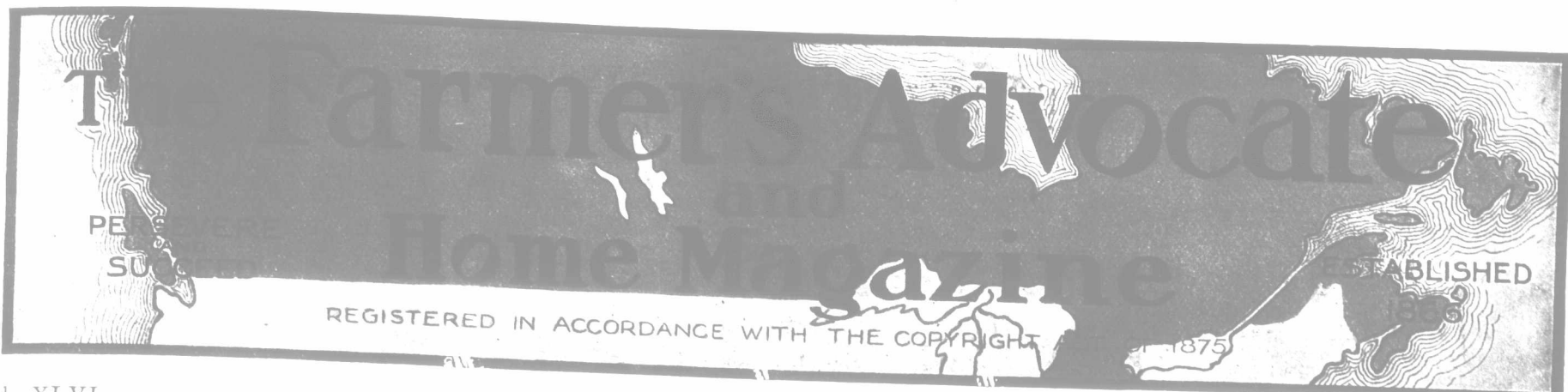
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WESTERVELT,  
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PAPER.



Vol. XLVI.

LONDON, ONTARIO, JANUARY 19, 1911

No. 956

EDITORIAL.

If your neighbor seems to succeed better than you, do not envy him. Emulate him; co-operate with him.

One of the best things that can happen in a neighborhood of farmers is to cultivate the community spirit. Stand together. Work together. Improve together. Build up a reputation together. Our best interests are common.

Much good has resulted through the introduction and improvement of this or that variety of barley and oats. But what are we doing to enhance the value of the common hay and clover crops that cover more land than any two cereal crops put together?

Not the least of ills associated with town life is the turning of night into day, with wasting frivolities and feasting. As Dean Bailey, of the New York Agricultural College, sententiously observes, "The hogs and the hens know better than that."

"Few settlers purchase land on the mail-order style of doing business," observes "The Farmer's Advocate," of Winnipeg. "They see the country, and, being satisfied as to land and locality, often buy; but seldom without being satisfied. Well-graded roads throughout a Province satisfy present settlers, and attract newcomers. It is economic advertising."

The point is well taken. Has it not also an application in the East? Many sections of Ontario and the Maritime Provinces, and possibly, also, Quebec, will be making a bid for closer settlement as time goes on. Good roads are one of the factors that will help to draw and hold them. From a purely commercial standpoint, road improvement is a paying investment.

Can the American Feed Himself?

The Chief of the Bureau of Statistics at Washington, V. L. Olmsted, has issued the results of a study of the subject of population and subsistence. He combats the view that agricultural production will fail to keep pace with the growth of population, by reason of the waste of fertility into streams, and soil-robbing farm methods on the newer lands. He quotes statistics showing that in many States the crop production per acre of leading crops in some cases has quite equalled and in others exceeded the increase of population. He arrives at the conclusion that the ability of the soil, coupled with agricultural art and science, (better farming), to produce crops at a rate of increase greater than either the normal rate of increase of population, or the normal, temporarily influenced by immigration, has been demonstrated times innumerable by the Department of Agriculture, by experiment stations, and by intelligent farmers all over the country.

The moral would seem to be that, with proper methods in soil management, the Republic will be able to produce sufficient food for its subsistence. The improvement of the older land will be worked out in the endeavor of farmers to secure a better living, and this will not be attained by a sudden high production per acre large enough in the aggregate to become overproduction, with unprofitable prices. In so far as the consumer is concerned, the problem appears to be one of an economical and efficient distribution of foods. In retail marketing there is great waste

"Book-farming."\*

Book-farming—what endless rounds of ridicule have been poured out upon that much-abused idea! I suppose the expression calls up to you, as it does to me, examples of enthusiastic young men who, having got hold of so-called advanced ideas at the agricultural college, or elsewhere, undertook to apply them all immediately in their own practice, and teach their benighted fathers how to farm! We know the usual result. Sudden investment in big barns, elaborate equipment, fancy-bred stock, and a complete upset of the whole system of farm economy threw things out of gear. The father did not take kindly to the new way, and seldom had patience to give it even a fair trial, and the son, being nine times out of ten one of those ill-balanced individuals, with more enterprise than judgment, inclined, besides, perhaps, to carry his head high and cut a dash in the neighborhood, the new ideas panned out indifferently, returns not increasing in proportion to the expense, so that the end of that farm was likely to be a mortgage sale, and the latter days of the young man were very often employed in business, horse-doctoring, or some phase of professional agriculture less exacting than making a good living from the soil. And so "book-farming" became a fresh laughing-stock in that locality for a decade, or perhaps a generation.

WHAT BOOK-FARMING REALLY MEANS.

Yet, notwithstanding these many pathetic examples, I submit in all seriousness that Canadian agriculture to-day needs more book-farming—by which is meant, thorough farming, business farming, scientific farming—in a word, good farming. Definitions are sometimes helpful. Let us venture one. Book-farming, as advocated in this address, means simply farming in the light, and with the aid of the knowledge, suggestion and stimulus contained in books, bulletins and the agricultural press, embodying, as they do, the scientifically-interpreted experience of our best practical farmers, together with the results of scientific research and public experiment. Agriculture has become too large a subject for any of us to master, and no man who will be a law unto himself can hope to achieve a really broad-gauge success.

A TRADE, A BUSINESS AND A SCIENCE.

Farming has been described as a trade, a business and a science in one. In primitive days it was almost wholly a trade. Our grandfathers who hewed out their homes in the forest had little science, and small opportunity to use if they had it. Their business, also, was of the simplest character. But times have greatly changed. Farming is now a complicated business and an intricate science, the two interwoven together. Our best farmers to-day are keeping accounts, studying the relation of cost, returns and profit. The scientific side has developed even more than the business. It is a score of sciences rolled into one. Not only have we to consider many minutely ramifying principles, but we have further to take account of the immense variety of conditions under which those principles are to be applied. And yet there are persons who regard agriculture as a small subject, easy to master. They do not realize its proportions. Agriculture a small subject? It is an immense subject—immense in the visible problems it presents, still larger in the depths to which it penetrates, and

\*From an address by W. D. Aldright, Managing Editor "The Farmer's Advocate," before the Western Ontario Dairymen's Convention, January, 1911.

the breadth to which it extends. It is like an iceberg—one-eighth above the surface, seven-eighths below.

TWO KINDS OF THEORY.

Before proceeding further, it may be just as well to deal briefly with the common impression that book-learning is mere theory, and, consequently, a very unreliable guide in practice. In the first place, let me point out that the printed page contains, besides theory, a great deal of accurately-recorded experience, so that book-learning and theory are not altogether synonymous terms. In the second place, you will find, on consulting a good dictionary, that there are four or five shades of meaning given for the word "theory." One of these meanings is closely allied to "speculation"; that is, an inference or a guess. Another meaning is, "An explanation of the general principles of a science, as the theory of music." This latter kind of theory, when deduced by a really competent and practical authority, is a most excellent and reliable guide to practice.

It would be neither wise nor fair to ignore the fact that in the past there was a common tendency in our agricultural colleges, and also in the agricultural press, to publish half-baked theories that amounted to mere speculation. I will not say that agricultural teaching is not still tinctured with the germ of speculative theory. It is a very easy thing to get off into the realms of unstable plausibility. But, for the most part, I believe our professional agriculturists have learned their lesson pretty well. In selecting men for such positions, preference is now given to those who have built their education on a foundation of practical experience, and the caution thus ingrained, supplemented by the stress of responsibility, makes them careful to utter speculations as speculations, and not as proven facts.

TWO KINDS OF THEORY ILLUSTRATED.

As illustrating these two kinds of theory, viz., speculation on the one hand, and confirmed conclusion on the other, let me refer to the aeration of milk. I suppose it looked plausible that milk should be aerated, and some imperfectly-interpreted experience seemed to confirm the inference. But, in course of time, out came Prof. Dean, declaring it was a mistake. Still, the idea had taken such a hold on popular opinion that it was reluctantly given up until Mr. Barr's experiments under farm and factory conditions knocked the props out from under the belief, and demonstrated that putting the lid on and cooling quickly was the proper way to care for milk intended for cheesemaking.

Now, on the other hand, let us consider an illustration of another kind of theory, the theory that amounts to scientific interpretation of a large body of experience. The Bacteriological Department of the Ontario Agricultural College has for some years past been sending out nitro-cultures for treating the seed of alfalfa and other legumes to inoculate them with the bacteria by means of which they are able to take up free nitrogen from the air circulating through the soil. These cultures have been sent to a good many hundred farmers all over Ontario and beyond. Great variation was shown in the published results, ranging from marked increase in growth, down to no observable result at all. Experimenters have declared to me, on the one hand, that nitro culture was just the thing, and, on the other hand, that it was no good. When we get all the reports in, and average them up, we find that of those reporting a considerable percentage found a benefit, greater or less, while the rest had

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not. Examining further, we find a reason for the variation in results. We find, for one thing, as Mr. Glendinning has often told us he found, that on farms where alfalfa has grown recently before, or on farms where sweet clover has grown, it is usually unnecessary to inoculate alfalfa seed, as the soil has already been inoculated, the germs being distributed from field to field through manure and other means. But on farms where neither sweet clover nor alfalfa has grown before, inoculation is likely to prove beneficial, and is worth trying as a precaution, at all events. A number of other conditions liable to affect the results have been also discovered, among these being occasional failure to follow directions implicitly, owing to forgetfulness, carelessness and inexperience.

So there we have illustrated the insufficiency of personal experience as a guide to practice. Experience is valuable, but no one man's experience teaches the whole lesson. It is the careful, systematic and scientific deduction by a trained mind working on a large accumulation of representative experience that we should seek to acquaint ourselves with. That is the kind of broad, thorough knowledge we get in good books, bulletins, and the agricultural press. To be sure, there are poor books, superficial bulletins, and untrustworthy papers. We should select our reading, choosing only the best. But the right kind of reading will broaden our outlook, deepen and strengthen our understanding, stimulate our minds and quicken our wills to action. Of that kind of "book-farming" we need a great deal more.

#### VALUE OF EXPERIENCE.

There is a rooted conviction that farming can not be learned from books. That proposition I admit. Farming cannot properly be learned from books alone. Moreover, I am not here to disparage the value of practical farm experience. It is of the greatest importance, and I never lose an opportunity of emphasizing that fact. Not only does it develop practice and proficiency in the trade or art of farming, but, further, it develops ballast and judgment. It tends to guard against too ready acceptance of sweeping conclusions and plausible theories of a speculative nature. It gives one discrimination and a comprehension of practical difficulties liable to be met with in applying general conclusions to particular conditions; for, as I once put it in print, "Theory is to a certain extent a matter of principles; practice, a matter of details." I was told the other day about a young man in New York State, who built a fine dairy barn, up-to-date and com-

plete in every respect. But he found, when he went to put the cows in, that there wasn't room for them to stand on; the platforms were too short. He had been guided by some instructions written by a dairyman who kept Jerseys. His cows were Holsteins. The mistake he made does not in any way discount his ideas about dairy barns, though some of his neighbors would have it so. But it is a conspicuous example of the value of discretion born of experience. In this and other ways experience is most valuable, though it is far from being all-sufficient.

#### THE PERSONAL FACTOR.

But, I am reminded, there are some sensible men farming successfully by their own experience. Hold, are there? Examine the history, and you will find these men adjusting their methods very largely according to the practice of men who do read, who attend conventions such as this, and keep in touch with the trend of agricultural progress. What is book-farming this decade is common experience the next, practiced very often by men who would scorn to be considered book-farmers. Why, just think, it is only a few years since the advocacy of silos, cream separators, and the use of pure-bred sires, was looked on as notions of the book-farmers. To-day, cream separators are all but universal in our butter-making districts, silos are going up by the thousand, and no up-to-date dairyman thinks of using a scrub sire in mating cows from which he proposes to raise calves for the dairy. Thus has the heaven spread.

But, I hear again, some of these more conservative farmers who adopt improved methods second-hand make a better success with them than certain of their more enterprising neighbors who took up with them first. I grant there are cases of that kind. The explanation is found in the personal factor of the equation. After all is said and done, it still remains a fact that, in farming, as in any other occupation, the most important element is the man. Upon his native qualities, his judgment, enterprise, thrift, industry, health, business acumen, and so on, depends the success he will make. It is according to the law of compensation that very few men combine all these attributes in high degree. Some have plenty of enterprise, but lack thrift and judgment, and so on. We often find that men with the most enterprise lack balance. And when such men make mistakes and fail, it is usual to deprecate their enterprise. We mistakenly attribute to the plus what we should attribute to the minus. It is not the enterprise and book-learning they possess, but the natural endowment of which they are not possessed, that accounts for their failure. Better poor methods applied well than good methods applied badly. Let not the level-headed farmer fear enterprise because some enterprising man fails for lack of judgment or industry or thrift. Rather, let the man with good judgment stimulate his enterprise by reading and otherwise, and then he will make not only a prompter, but a larger and more satisfying success than by adopting progressive measures second-hand.

(To be continued.)

#### Too Cheap to Be Without.

About a year ago I wrote you for a sample copy of your valuable paper. I also sent for a copy of another agricultural paper, which I received, as well as yours, and, to give credit where it is due, I am obliged to say that "The Farmer's Advocate" contains more valuable information on every point concerning farmers (and others, also) than any of the many agricultural papers I have seen.

I consider such a reliable paper as "The Farmer's Advocate" too cheap to be without, as an instructor and reminder, and so enclose \$1.50 for a year's subscription.

WM. JAQUES,  
Grey Co., Ont.

#### 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.

#### Inequality of Taxation in Canada.

Editor "The Farmer's Advocate":

Your editorial, in the December 29th issue of "The Farmer's Advocate," commends itself to reasonable men as a fair and common-sense view of tariff reduction. To reduce the tariff uniformly and gradually would prevent disaster to any manufacturing interest worthy of continuation, teach and compel scientific management. Resultant effects would be reduced prices to consumers. The gradual reduction would, as you say, regulate extortion, energize sound, well-managed industries.

Allow me to refute in your large circulation a statement made by Mr. Russell to the Toronto Canadian Club, and published extensively, that the Canadian agriculturist did not pay his equal share of taxation.

Let us look at this levying of taxation in Canada. Taxation in Canada is divided into three divisions, municipal, Provincial and Dominion. As Provincial taxation, so far, is mostly raised from natural resources, excepting some small assessment on corporations, it need not be noticed at present. Municipal taxation is assessed on real estate, personality and income, but the unequal difference is this: On realty the assessment is on its value; on personality, only on income derived therefrom (when taxed). That means one kind of property is assessed about seventeen times more than the other.

For instance, you invest in a farm for a living ten thousand dollars; you are assessed for ten thousand dollars. You invest, instead, your ten thousand dollars in personality, say in mortgages, stocks or bonds; if assessed at all, you are only assessed on income derived therefrom, say five hundred dollars. Suppose the rate in the municipality is 2 per cent. As a farmer, on your \$10,000 farm you have to pay \$200; as a capitalist, on your \$10,000 invested, only \$10.

John Stewart Mill, the political economist, states that investments in a country in personality equal the entire value of all realty. Surely the farmer, as one of the great owners of real estate, pays more than his share of municipal taxation.

Take now Dominion taxation, which is based on customs and excise. Customs are levied principally on food, clothing, drink, and other household necessities. Under this form of taxation, relatively, the poorer classes are taxed heavily, and the wealthy escape. That is, the class that are best able to bear taxation escape.

Take concrete instances: Two gentlemen died in Toronto, one leaving an estate valued at ten million dollars, the other five millions. The latter gentleman had no family, and lived quietly. Probably any ordinary farmer with a good-sized family paid as much into the Dominion treasury as did this gentleman. Does it not seem unfair that an ordinary farmer, or a man on an income earning no more than existence, should pay as much Dominion taxation as a millionaire, if the millionaire so desires it?

Surely the basis of all taxation should be wealth and the ability to pay. Probably there is no country in the world where taxation is more unequal than in Canada. How do we compare with Britain and other countries? For Imperial purposes in Britain, there are a few articles—chiefly luxuries—taxed; but, in addition, there is an income tax, based on wealth. I do not know what the rate is now, but during the Boer war it was 6 per cent. on income. Now, the two Toronto gentlemen mentioned, if living in Britain, would have had to pay 6 per cent. interest on their entire incomes derived from a wealth of ten million dollars, and five millions, respectively, but in Canada they had the privilege of paying but little, if any, more than a poor citizen. On analysis, taxation in Canada falls heavily on the industrial classes. Those especially inheriting wealth by the accident of birth, can, if they please, by investing in personality, evade and escape municipal taxation, and also equally so Dominion taxation.

When this country was young, and wealth more equally diffused, the form of taxation did not matter much; but now, with many millionaires and multimillionaires, circumstances are different. A more equitable levying of taxation should be considered and adopted.

Halton Co., Ont.

PAUL CAMPBELL.

#### Discussion Invited.

If the Massey-Harris Company would transfer their newly purchased factory at Batavia, N. Y., and bring it into Canada, what benefit would it be to Canada, if any? Or is it any benefit to Canada where it is now? If not, why not? Does the increase of population benefit the farmer?

Bruce Co., Ont.

J. P. JOHNSTONE.

[Note.—These questions are extremely difficult, if not impossible, to answer fully, fairly and accurately. Nevertheless, simple as they are, they touch the fundamental principle, the argument for protection to manufacturing industries. The questions are left open for discussion. Any replies which are to the point and valuable we shall be pleased to publish.—Editor.]

**Demonstration Farms in Alberta.**

What promises to be the first series of demonstration farms along practical lines in Canada are being established in Alberta. The Minister of Agriculture has grasped the idea of local education of a practical nature so forceful that even those who do not care will see that it will pay to change methods or adopt new systems. With six demonstration farms scattered over the Province, a fairly good equipment for agricultural educational work should be provided. The main point now is to secure a competent superintendent and capable farm foremen.

The Alberta Government evidently aims at permanent centers of education for the various agricultural districts. A hall is wanted for Institute meetings, and live stock for special demonstration lectures. For this purpose, the purchase of the farms is essential. The difficulty here will be that it will not be easy to keep accounts separate, and show debits and credits that will be approved by practical farmers. When a man sees a neighboring farm being run in such a way as to bring in bigger annual profits than his own, he is likely to adopt some change in his methods; otherwise, he is liable to pay little attention. — *Farmer's Advocate and Home Journal, Winnipeg.*

**War and Courage.**

Devotees of militarism glorify war on the ground that it cultivates courage. Never was there a more overworked delusion. Truly, courageous souls rise to heights of bravery amid its carnage, but, as a rule, it is rather the animal courage of the horse rushing into battle, the blood-lust of legalized murder, inspired by the boom of guns and martial music. On this plea of developing bravery, does anyone condone the wars of Napoleon, that for twenty years drained the best blood of Europe, wasted its resources, relegated its cities to rapine, paralyzed its industries, retarded its agriculture for nearly half a century, and filled its homes with desolation? A spirit of courage purchased at so great a price is too costly. Bravery we need in the twentieth century, but the vicissitudes of the farm, the trials of home life, the assaults of the street, society and the market-place, upon honor and virtue, are the things that demand and cultivate real courage, and fortitude, which is better.

**HORSES.**

A "blind bridle is a relic of barbarism."

To make a fine coat, feed well, clothe warmly, sweat often, and groom thoroughly.

Never let your horse know that he can successfully resist you.

Remember, there is no use trying to control a horse unless you can first control yourself.

Never say whoa unless you want your horse to stop.

Dark stables produce blind, stumbling and shy horses.

Never whip a horse when he shies or stumbles; he needs encouragement, not rebuke.

**Extensive Farming with Horse Power.**

A. J. McMillan writes interestingly and instructively under the above caption, in the Christmas Number of the Western edition of "The Farmer's Advocate." From him we quote as follows:

For two years I have acted in the capacity of manager of a large farm at Bangor, Saskatchewan, the acreage of which is 10,000 acres. There are 3,000 acres under cultivation. This year the summer-fallow area is 400 acres. The work is done by horse power.

To one who has been accustomed to handling farms ranging from 100 acres up to three-quarters of a whole section, details of operations here are interesting. We have 78 horses, over 60 of which are at work almost every day. Many of these animals cost \$300, giving a total value of horse-horse in the neighborhood of \$16,000. Last spring the seed was put in with five 20-disk (single) seed drills. With four horses on each of these, we seeded about 100 acres a day. Harrowing was done with 22-foot harrows, a four-horse outfit covering 50 acres in a day. Three such outfits were used.

Last year, in plowing stubble, we used eight 5-horse teams on two-furrow, 12-inch gangs, turning 35 acres a day; and, at breaking, 30 acres a day was considered good work. This year we have broken with seven 6-horse outfits on the two-furrow plows, and easily averaged 32 acres a day. We plow on one-mile furrows, going eight rounds, or sixteen miles each day. The same plows are used for stubble and breaking, simply by changing the bottoms.

In harvesting, we count on cutting about 150 acres a day. Last season, six 4-horse teams averaged over 135 acres a day. We work ten hours a day, leaving the stable at 6.30 in the morning, and coming in at 11.30, then returning to work at 1.00, and quitting at 6.00.

**AVOID LOSS OF TIME.**

A point that cannot be emphasized too strongly in the management of a large concern is punctuality. The loss of five minutes by twelve teams means one hour's loss for one team, and just as a small farmer would object to his team coming from the field an hour too soon, or remaining an hour too long in the stable, so the large farmer should see that each team spends its required time in the field and likewise in the stable. This must be done systematically, and can be most easily accomplished by having one man as "lead teamster," and holding him responsible for being in the field and in the barn at the proper time, and allow no one to go out or come in ahead of him. Thus, any trouble which may arise lies entirely with one man, and can be immediately located and remedied.

Changing from one line of work to another occupies a good deal of time, and, while this change is going on, no work is being accomplished, but the loss to a large concern can scarcely be realized if much changing is allowed. This is a very important factor toward successful management, and the work should be arranged so that the majority of the employees may be kept at the same class of work as much as possible, while one or two men could be employed whose duty would be to perform all classes of work as they become a part of the routine of operations. Thus, if a man begins spring work with a four-horse team, keep him with the four-horse work, from seeder to harrow, harrow to plow, and plow to binder; while, if a man has two horses in charge, keep him at two-horse work, which is always necessary, and thus avoid numerous changes of horses, harness and implements, which are not only an aggravation to the employee, but a decided loss of time and money to the employer. If such system is followed, the difficulties in manag-

ing a big concern are lessened. Those who have handled a large acreage will appreciate the importance of working along this line.

**Care of the In-foal Mare.**

The brood mares on most farms should receive the most attention of any of the mature horses. Complications, with serious results, may arise from a run in the field or over the ice, from a little carelessness in feeding or watering, or in working. Yet, when the care and management is squarely faced, there need be very little departure from the routine, and they may do much work both to their owner's and their own advantage.

Exercise for brood mares is best attained by work, for then the amount can be regulated, and all precautions taken. In-foal mares should not be worked double on bad roads, where crowding is apt to occur, on account of the knocking against the tongue and the other horse. But if the winter roads are good, they may go double, and at quite hard work, provided they have been gradually brought up to it. Quick, sharp pulls, such as are required to start a sleigh that is frozen down, or to pull it out of a deep rut, should not be asked of the brood mare. Neither should she be asked to do heavy backing. Steady, moderate draft work on good roads, with a quiet mate, or single work about the barns, will keep a mare in much healthier condition, and bring a stronger foal than results from indifferent exercise. When in-foal mares are run together in a shed, with an open lot, they are apt to kick or otherwise injure each other; they are very often more peevish and cross at this time, and for that reason are better when each is kept by herself. The same danger is presented if they are kept in separate box stalls part of the time, and turned out on nice days for exercise. Such exercise is too likely to be irregular; the mares exercise too hard; they are likely to slip and strain themselves, or fall.

Feeds should be clean and wholesome, so as to avoid any likelihood of digestive derangements or colic, to which there is perhaps a slight tendency during pregnancy. Besides being clean, food should be plentiful. A brood mare requires more liberal feeding than the gelding or barren mare. It is not a bad plan to endeavor to keep the mare just a little fat, if that is obtained by the use of oats and clean, mixed hay, with regular exercise. She should be at least in thrifty condition. Allow a few carrots, turnips or mangels, bran mixed with oats, or given twice a week as a mash. Clean, bright, fresh, mixed hay make the constituents of a good diet. Water should never be extremely cold, and should be given preferably before meals. However, regularity as to watering seems just about as important as the time. If the animal is used to drinking after meals, it will probably be less productive of harm to keep it up, than to change or to be irregular.

An in-foal mare is in such physical condition that she is more susceptible to the baneful influences of drafts, bad food, slight abuses, slight illnesses, and the consequences are far more serious than with ordinary stock. Keeping this in mind, the careful stockman, without going out of his way, will see to it that the brood mare has an even course of life, neither idle nor overtaxed, not fattened nor starved, petted nor abused, and thus bring her without useless expense in a healthy state to and through the parturition period.

The date of our special renewal offer expired on January 16th. We are now making an Eight-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 eight months' renewal on your own subscription free. Secure your neighbor to-day, and send in the new names now.



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## LIVE STOCK.

### Our Scottish Letter.

Agriculturally, 1910 has not been a bad year for Scottish agriculture as a whole. It is, however, impossible to generalize. The harvest made only a moderate start, but it mended, and for the greater part, if not the whole, of the lowland parts of Scotland, so far as weather was concerned, it was one of the best on record. But what can be said of the uniformity of Scottish agriculture, when one is told in the first week of December that the oat crop in some of the higher districts of the country had not even then been harvested. The weather broke about the end or middle of October, and it has mended very little since. Those who farm in the uplands have a rough time of it. Their crops take long to ripen, and even when they are ripe, they are sometimes not worth reaping. As a matter of fact, corn is scarcely grown there for the sake of the grain; the more valuable part is the straw, upon which the young stock is largely wintered. When, therefore, the crop must rot in the fields, the disaster is great, for the fodder is short, and the rearing of the young cattle becomes costly.

### THE DAIRY INTERESTS.

Dairy farming has not been nearly so prosperous as in some recent years. The rank and file of cheesemakers will have been producing their cheese at a loss. The price, except for really high-class, gilt-edged lots, has never got beyond a moderate figure. The position is that, unless makers chose to aim at the production of this really high-class, gilt-edged quality, they compete with the oversea supplies, and as these are graded to a uniform quality, the results are not favorable to the home producer. The adulteration of cheese does not exist, but the adulteration or manipulation of butter so as to secure high profits for little outlay has been reduced to a fine art. The British produce market has to a large extent been captured by a particularly mean type of foreign speculator. He has nothing at all that does duty for a conscience, and the public is easily gulled by a toothsome article. The Irish Department are taking energetic steps to put down this kind of thing, and some ingenious attempts at legislation have been made. Whether this will be successful, is at present in doubt. The "liberty of the subject" is an idol much worshipped in this country. In the United States and Canada, as well as in Denmark and Holland, the said "liberty" counts for very little if the public good is at stake. We will need to be equally merciless in this country, or there will soon be no "liberty of the subject" to conserve.

### CANADIAN LOW TARIFF.

Personally, I am much interested in this movement of the Canadian farmers against Protection, in favor of Free Trade with the Mother Country. Here there is in many quarters a disposition among farmers to flirt with Protection. There can be little doubt that a restrictive tariff on grain and meat and dairy produce would enhance the value of home produce of every kind. But the same principle would operate adversely to the farming interest if a tariff was levied on unmanufactured goods. The position of farmers in Great Britain at present is that which the Canadian Northwest farmers seemed to desire. They want an open market for the importation of machinery, and in this way to reciprocate the action of the Mother Country in throwing her ports open to the producers of all lands. My impression is that this Mother Country cannot possibly, in her own interests, do anything else. By improved methods of cultivation and co-operation, we can increase production, while cheapening its cost; but after we have done our very utmost in this way, we cannot feed our population with what is produced in these islands in the North Sea. Our millions must be fed, and our agriculture could not, unaided, feed them. Hence, my conviction that whatever the British artisan may do to protect his own labor by possibly putting a tariff on manufactured goods, he will never consent to levying a revenue duty on any of the necessaries of life. There is always plenty of room at the top, and if we here will only endeavor to produce the best, we can always command the best market in the world. There is great need for a general advance in technical training, especially with a view to reduction in cost, and enhancing the quality of production in this country. Gradually this fact is being recognized, and, although the movement is slow, it has been singularly steady. There has been no going back, and the prospects all are that there will be progress all along the line.

### BRITISH ELECTIONS AND FARMING.

We have had a General Election—the second in the year 1910—perhaps a unique experience for most of us who are on the electoral roll at the present day. Agriculture gets a poor show in the new Parliament. It consists of 670 members, and among these there are only nine farmers. I wonder what the proportions are in the

Dominion Parliament? All sorts of securities here have receded in value, and the blame is being placed on the shoulders of the present Government. Land is being threatened with increased taxation, and in many quarters there is a disposition to deal somewhat drastically with the private ownership of land. Whether the present depression in land values is due to a temporary scare, unwarranted by anything in the policy of the Government, or is really a sound estimate of what is impending, we cannot say, but for the present no one is keen to invest in land, and all speculation along that line is at a standstill. It ought to be admitted that for some years past there was undue speculation. Houses were built far in excess of the public demand, and to-day many hundreds are standing unoccupied in this city. So far, the disposition of all concerned at present is to "wait and see" what the next move of the political game will be.

### DEVELOPMENT COMMISSIONS.

The year closing will be remembered for one notable advance in the recognition of agriculture by the State. The Finance Act, which caused so much stir, and was the issue at the January election, contained provision for the appointment of Development Commissioners. Their duty is to consider the value of schemes for the promotion of agricultural research and experiment, which will be entitled to subsidies from the fund of £45,000 per annum, placed at the disposal of the Commissioners. This is an entirely new departure in British statecraft. Hitherto the idea has been to let agriculture "paddle its own canoe." The Commissioners are a strong body, and, so far as one may judge from present appearances, they are well acquainted with the objects which come under their notice. Agriculture has a pretty strong representative in A. D. Hall, F. R. S., the Director of Rothamsted Experimental Station. He is a man of exceptional ability, and may be trusted to keep steadily in view the lines of research and experiment which are calculated to yield the best results in the future.

### AID TO HORSE-BREEDING.

The only thing the Commissioners have settled is the allocation of a sum of about £20,000 to encourage horse-breeding. The idea is to make



A Prizewinning Cheviot Ram.

it worth the farmer's while to breed army horses. In the opinion of many practical men the scheme which has been formulated begins at the wrong end. The way to encourage farmers along the line aimed at is for the War Office to pay a decent price for the horses after they are bred and reared. There is no provision for this in the scheme, which is probably regarded as a matter which concerns the War Office, and not the Board of Agriculture and the Development Commissioners. But it is the crux of the whole business.

### THE SHOWS.

The Fat-stock Shows for 1910 are well over. They have been unusually interesting. In some past years there have been exhibited animals of more pronounced individual merit, but I am not sure that there has ever been exhibited a better illustration all round of the kind of animals butchers are calling for to supply their customers. The Aberdeen-Angus breed has once more proved invincible on hoof. The Aberdeen-Angus-Short-horn cross has again proved in the carcass competitions to be the kind of animal which supplies the butcher with the beef that pleases his customers. The Galloway sold best of all the pure breeds on hoof. He is a favorite with the London butcher, and enjoys an excellent reputation for killing profitably. In this respect he is run a close second by the Highlander, which indeed surpasses all breeds in favor with the London West End butcher, but, unfortunately, his commercial value to the feeder is considerably lessened by the fact that it takes a year longer to put him on the market than any of the other breeds. In the carcass competitions for mutton, the Southdown was a clear champion, with the Cheviot a strong reserve. The popular mutton with the West End butcher at present appears to be the Suffolk-Cheviot cross, but, unfortunately,

it has the same drawback as the Highlander—it is not commercially so valuable to the feeder. This important distinction is sometimes overlooked. It is one thing to know that beef or mutton of a particular grade is what the public most desire, and another thing altogether to determine which combination of breeds will yield the best commercial returns to the feeder. The public do not always pay the excess demanded by enhanced cost of production in the case of the kinds of meat they chiefly demand. It is the same with milk, at least in this country. The public will pay exactly the same price for milk of a high standard in butter-fat as they will for milk of a low standard. The farmer has, therefore, no inducement to put a higher quality upon the market. There is great need for the education of the popular taste in the matter of quality in all kinds of food products.

So far as pork is concerned, the recent fat-stock shows record a sweeping victory for the Berkshire. No other breed had any show against these small, compact, level-fleshed black pigs. The only cross which once or twice broke the uniformity of their victory was the Berkshire-Tamworth cross. It does not appear to us that the farming public quite recognize the importance of bacon-raising. This is specially the case in Scotland, where, to be quite candid about it, the pig, or hog, is somewhat despised. But there is more money in pig-breeding at present than in any other department of stock-breeding. Wisdom is profitable to direct, and next season may witness a notable advance in the attention paid to bacon-raising in North Britain.

### THE HORSE TRADE.

The position of the horse-breeding industry during 1910 has been wholly satisfactory. Farmers have had a good time, and stallion owners are likely to reap the benefit. During the past six months, nearly a dozen of the best Clydesdale horses have been hired for 1912. This is an unprecedented experience, and it proves how healthful the draft-horse-breeding business is at the present time. The Clydesdale Horse Society is determined to show its sense of indebtedness to the Canadian patrons of the breed. Gold medals have been donated for competition at the principal fairs and exhibitions from St. John, N. B., to New Westminster, B. C., in 1911, and the surplus capital of the Society has been invested in Dominion 3½-per-cent stock. The Clydesdale men know who are their friends, and they mean to reciprocate in respect of what Canada has done for the Clydesdale. Thus far 1910. The writer wishes all the readers of "The Farmer's Advocate" a prosperous year in 1911.

"SCOTLAND YET"

### Dairy Heifer Breeding as an Industry.

In good grazing sections more or less distant from cities or towns men have made returns that satisfy them in rearing stocker cattle for sale, to be finished by others on more high-priced lands. If there be money in this process, is there not as much or more in making a business, under such local conditions, of raising for sale dairy-bred heifers to, say, two years old? The enormous growth of urban population in the United States and Canada creates an unprecedented demand for milk and its products, with which production seems unable to keep pace, even at the expense of curtailing exports to Great Britain, the world's great eating-house. All over America, men in the whole-milk trade do not pretend to rear their own cows. They have not the time nor the by-product, skim milk. To buy them becomes increasingly difficult and costly. But they must be got, for milk is demanded all the year round. In many factory sections, calves are yet slaughtered at birth, and, to renew the herds in spring, farmers depend on drovers' auction sales. Unless we have a change in policy, we shall see a famine in dairy cows, just as there is in good beef stock. A large New York dairy farmer told "The Farmer's Advocate" lately, that last year he went into the next State, where he understood grade Ayrshires were plentiful, and could be got at moderate prices, but, landed in his stables, they "stood him out" \$75 or \$80 each. Now, it is not enough for one or two men in a township to embark in rearing "fresh" or in-calf milkers. The district should develop a reputation, so that competing buyers will be attracted, and cows can be picked up by the car lot. Jefferson County, Wisconsin, has done this, chiefly with Guernseys and Holsteins, and is shipping out for buyers from Illinois, Iowa, Michigan, Minnesota, and other States, \$100,000 worth of stock per year, in addition to about \$2,000,000 worth of dairy products. Grade cows sell at from \$10 to \$100 each, the common price for a good one being \$75, and, apart from the cost of foundation stock, it costs no more to produce them than it does the \$35 type of animal. Land in Jefferson County is now worth from \$125 to \$150 per acre. Chas. Nelson, of the Minnesota Farmers' Institute corps, who made a special study of the subject on the ground, says these results have been attained by making a real business of it, and sticking to one or other of the dairy breeds, and regularly using



THE FARM.

Do Low Wages Hinder Agriculture?

Editor "The Farmer's Advocate":

Sometimes it is well to look at subjects from new points of view. It helps to secure a truer perspective and better-balanced judgment. Of recent years we have been hearing considerable about farming being hampered by the high cost of labor. It seems to me, sometimes, that agricultural progress in this country is being retarded by the low wages ruling for farm help. How many readers have ever paused to take a good square look at the effect of wages upon agriculture? A few years ago, a friend of mine—a farmer's son—was over in England, and a letter he wrote me while there set me thinking. "The curse of agriculture over here," he said, "is low wages. Help is still plentiful and cheap. Being cheap, it is abundantly wasted. It is nothing uncommon to see three or four hands putting on a load of hay or grain; with a boy leading the horse. A great deal of work is done by hand that could be quite as well and much more speedily accomplished by horse-power and implements. If wages were higher, they would have to stop wasting so much of it. More labor-saving machinery would be used, and in time the farmer himself would be better off, while the agricultural laborer would find life a little better worth living. Under present conditions, they can scarcely expect to rise above the estate of peasants of the poorest class."

When I read that, I began to rub my eyes. Had it any application to conditions in Canada? The more I pondered it, the more I thought it had. I began to observe.

Here is the cream separator. As long as a hired girl could be had for five or six dollars a month to make butter, lug milk pans up and down stairs, and skim milk out to the barn, we were quite content to do without a separator. Now that we can't get a good girl under \$15, we find that old way out of the question. We have had a cream separator now for ten years, sending our cream to a butter factory, and it has been a good investment in more ways than one. Yet I am not sure but that we would still be toting milk pans up and down cellar if high wages for domestic service had not forced us out of the rut. Then there is the tedder, one of the most valuable hay-making implements in the field. We used to go out with forks and turn the hay, but labor became too dear, so we purchased the tedder, which shakes the hay up better, oftener, and much more cheaply than we could do it by hand. Take the self-binder. I remember, when it came in, very few farmers bought at first, because it was so expensive. But, as time went on, they found it more expensive not to have it. So now we tie our grain more economically with the binder than we formerly did by hand, even under the former conditions of low wages. Increase in wages hurried that change, to the mutual advantage of employer and employed. So with our plows. So long as a man could be hired for \$18 or \$20 a month, we never seemed to feel the necessity of increasing his earning power. But when wages got up to \$25 and \$35, we have to sit up and take notice. On our farm we find that one man can do twice as much plowing with four horses as with two. In other words, a thirty-dollar man does as much work as two twenty-dollar men used to do, and we are still ten dollars ahead on the game, beside the extra man's board.

I am convinced that this principle of doubling earning power can be applied in many phases of farm operations, to the mutual advantage of farmer and hired man. And, besides, on farms where these modern methods are adopted, the employer himself earns better wages while working upon his own land, as "The Farmer's Advocate" has truly pointed out.

For my part, I have ceased to begrudge the

wages paid out to my skilled farm help. Surely the laborer is worthy of his hire, and, by up-to-date methods we can make him worth more, paying him a good share of the increase, and still having a margin to reward us for our enterprise. Lambton Co., Ont. "HUMANE."

The Farm Home Bank.

Editor "The Farmer's Advocate":

The title indicates a bank, and the question naturally arises whether it is a new one just forming, or one which has closed its doors? In one way it is old; in another way it is new. It is a bank for the farmer, but not "The Farmer's Bank." Its capital is taken from the soil. Its general manager and board are the farmer and his family, and its place of investment the farm. In this institution we depend on no one, but he who earns or helps earn the money invested. This bank does not depend upon the Government to inspect, or look forward, in case of failure, to double liability.

For sake of distinguishing the two classes of men, we will take a parallel case. Two men with each one thousand dollars to invest, and each with an ordinary farm. By ordinary, I mean the average in the district from which I write.

The first man is induced to make his investment in some stock, gold mines, or bank, etc. He places his money out to work for him, and goes back to his farm to work with the ordinary stock and implements. What are his rewards? He has a conscience which is not at all clear. His money has been placed in someone else's hands, to make profit by some means he knows not of. His wife and family, who helped earn it, have no say in it whatever. His money is gone; he cannot see it, use it, or have any good of it. His interests are visionary and uncertain. The money he worked hard to earn is placed in someone else's hands to use, when he might have used it himself. And at last, after a few months, or, perhaps, years, he receives notice of "insolvent," and perhaps notice of double liability.

In the second case, the man finds a stock company or banking institution in his home—call it, if you will, "The Home Bank." Instead of ordinary grade cows, giving four or five thousand pounds of milk, he invests three hundred dollars in improving the herd. He disposes of some of the poorer of his horses, and buys a good brood mare at about \$400, and with the remainder buys a few good sheep and pigs. The second man has made his investment. What are his rewards?

In the first place, he stands for advancement and progress, not only to himself and the district to which he belongs, but to his country. The very fact of his buying better stock means that he is not going to sell till he has brought the product to a finished state. In nearly every case where we find a company or farmer putting out a finished product, it means advancement. See what it means to a country: The little island of Jersey is to-day known the world over as the home of the highly-specialized piece of mechanism, the Jersey cow. Holland, which is to-day one of the richest spots on the globe, producing three or four crops yearly, has literally redeemed itself from the waves and tide of the sea by the industry and thrift of the studious Hollander and the prodigious capacity and productiveness of the Holstein cow. The Danish farms were at one time brought to a very low ebb by selling hay, straw and barley. Denmark saw the danger-signal, and turned from selling raw material to finished product, and to-day she stands in the world's greatest market for butter and bacon. Just as the putting out of a finished product brings wealth to a nation, so does it to the individual farmer.

In the second place, the character of the man is changed by investment in the "Home Bank." A good horse or cow, which conforms with the best type and productiveness of its kind, cannot help put a different phase on a man's life and character. Just as one who looks on nature and studies its growth and beauty is transformed to

pure-bred sires. In a little while, drovers and dairymen will be scurrying all over Ontario in the annual chase for cows. Is there not a good opportunity for a few districts to launch into the business of rearing them? What particular breed is to be used, men can best judge by the local conditions and prospective demand, but for many sections there is still a warm reception awaiting cows that will fill the pail and produce a calf that can be profitably converted into beef of quality, a type commonly described as the milking Shorthorn.

How Much Silage per Cow?

Here is a question upon which we would like the opinion of a few dozen careful feeders who have used silage for a number of years: How much corn silage is it advisable to feed a cow per day? As a rule, we do not recommend over forty pounds, though there are dairymen who feed large cows fifty, fifty-five and up close to sixty pounds a day. The question is whether it is wise to feed this quantity when the cows eat it readily. Those who do so, watch their cattle closely, and at the first sign of scouring or cloyed appetite reduce the amount promptly. In this way they claim to avoid any ill-effects. But can they tell? Whilst we have long since given up the old fear about silage causing the teeth to fall out, ruining the digestion, and all that sort of talk, still we must remember that silage is an unnatural feed, in that it contains a considerable percentage of acid. A moderate amount of this, like a small amount of pickles or sauerkraut, is not injurious. But it is not demonstrated that an unlimited quantity is either safe or wholesome. Reasoning by analogy, we could easily find ground to argue against it. There are persons who have turned their stomachs against apples for years by overindulging once or twice, the result being that whenever a single apple was eaten it would cause distress and apparently an acid condition of the stomach. Is it not possible than an overdose of silage, continued for several months, might have a similar effect on a cow? If so, is it not well to avoid the possibility by moderate feeding? And in how many feeds a day should this be given? The fact that a cow takes 55 or 60 pounds a day does not guarantee that it is good for her. We believe this is a subject that might be discussed with profit. Write short letters, well to the point.

Clover vs. Timothy Hay for Stock.

Editor "The Farmer's Advocate":

In reference to your criticism on value placed on manure and risk in horse-power contest, I think you are quite justified in the first instance. Now, in regard to the manure, when I placed the value on it, I figured it out on a basis allowed by some, of the fertility left in it after being fed to animals. Providing it is applied fresh to the land, it worked out to about \$26, the hay varying according to the percentage of clover; deducting \$6 for loss on the road, would leave \$20 for the year, and not \$30.

As I never had a horse-barn with a loft above large enough to hold hay to carry my horses through, I always filled the horse barn with clover, and the hay which I had to move into it after it was empty. I figured on being timothy, and, of course, this was the last hay cut. I always noticed, after starting to move hay, that my horses' hair, in about two weeks, would begin to look bad, and then I would have to feed bran and some oil cake to keep them right. Even then I would have a horse occasionally have trouble with indigestion, also colic; sometimes they would bother by stalking-up in the stable. I began to think it was the hay that was doing it, and I decided to grow and feed them mostly clover. To avoid the leaves shaking off, I started cutting a little earlier and curing it in the coils, that which had to be moved. I never have had to feed any bran or had a sick horse while I was feeding this class of hay.

Now, just to show that the percentage of indigestible fibre increases, not only in timothy hay, but also in the clovers, very fast when they get well advanced, I will give you an instance of what happened in my cow barn this winter. As I had quite a lot of alfalfa for the help I had, I left three acres standing, and drew in out of the coil for three days; then, the weather being bad, just put this piece one week behind the other. In putting this in the mow, I put it on top of all the first cutting. One could see it was too well advanced, but it had no rain on it, and looked nice to look at. The second cutting was placed on top of it. In feeding this out, three days after I had finished feeding the second cutting, and was feeding this overmature hay, my cows dropped 25 per cent. in their milk. Otherwise, things were exactly the same, and one fattening bullock had an attack of bloating. So I believe, if we give our stock the right class of food, particularly the fodder, the risk would be far less than if fed otherwise.

DAVID CAUGHILL.



English Farmsteading and Stock-yard.



Scales on Barn Floor.

I saw in your last week's paper an article on scales on barn floor. I have scales constructed as the question required, and will try and describe the plan. I have a place boxed off for my scales at barn-door post, large enough to hold them. My scales are 1,000-pound capacity. Size of my box is 3 feet one way, 4 feet the other, and 6 feet high, or up to the side girt. We can always get to scales when the mow is full of grain, and I always keep my scales there. Every pound on the scales counts 4 pounds on the platform below in basement: 50x4=200, or 300x4=1,200 pounds, and so on; it weighs correctly. Multiply the number of pounds by 4 and you have the weight. These scales are patented. The agent for the district I live in came and erected mine, at the cost of \$14, and I furnished the rough lumber. D. C. MCKENZIE. Middlesex Co., Ont.

GARDEN & ORCHARD.

Romance of a Peach King.

To make a fortune with peaches, you must grow them right and show them right, and get them direct to the retailer or consumer, sold in separate grades, and the same from top to bottom of package, delivered first and last in the season. Epitomized, this is the secret of the romance related in the Saturday Evening Post by Forrest Crissy, of J. H. Hale, of South Glastonbury, Connecticut, who operates 900 acres of peaches in New England, and 2,000 acres in Central Georgia. In a letter to "The Farmer's Advocate," Mr. Hale verifies the story, so that our readers have his personal voucher for the data here reproduced.

How did we start? Practically with nothing except an idea and education at the end of a hoe handle. That's the combination to make a captain of industry in fruit-growing. What was the idea? Just this: When a 14-year-old fatherless boy, working for a neighbor at \$12.50 per month, he ate the sweet wild fruit of an old seedling peach tree that melted in his mouth, and he asked the question again and again, "If this stony old hillside will grow such peaches as these wild, and without cultivation, what's to hinder it producing a splendid crop of choice, cultivated peaches?" "Nothing," was the answer, and, in spite of skeptical and faultfinding neighbors, he went ahead, and in the seventh year grew a crop that brought him over \$9,000 from 10 acres, lifted a \$2,100 mortgage, and freed him from debt. After a hand-to-hand fight with prejudice, superstition and tradition, he had won a reputation and the cognomen, "Red Label Hale." His finest peaches have a red label; the second grade, white; and the third, blue. On his New England land, he regards apple-growing as the main business; peaches are a quick-money crop, coming into bearing in three years, but rarely profitable after twelve or fifteen years; while, rightly handled, an apple tree will bear for a hundred years; so he uses peaches as fillers. In two or three years after the peach fillers are removed, the apple yield will increase from one barrel to six per tree. Every tree in any New England orchard, faithfully and scientifically cared for from planting time, is worth one dollar a year for each

year of growth, says Mr. Hale. His liberated orchard has 40 trees to the acre, is 12 years old, and is worth \$480 per acre, but could not be bought for that. The peach trees had paid for the land, maintenance, improvement and interest, giving him the apple orchard free of cost.

His first and second-best grades of apples he sells direct to the consumer, and puts a few neatly-printed circulars in each barrel or box, telling about his orchard and apples. Every apple advertises him, but the secret is honest, rigid grading. Each grade has a distinctive color label. Red means the choicest fruit grown in the orchard; white is good, but not extremely fancy; and blue, serviceable fruit, and a low price.

Then, on his wood-lots he has timber to make lumber for storage-houses, and spring-water ponds for ice.

But we must tell a little more about his peaches. In twelve years, a 22-acre tract of worthless pasture land put into peaches, paid him a profit of \$44,000. The land was rented on a basis of paying the owner six per cent. on its valuation, but in a single year the land paid from peaches a net return of 22 times the valuation of the property.

ONE THOUSAND DOLLARS PER ACRE.

Another 30-acre peach orchard yielded in one crop more than \$24,000—over \$800 per acre. (This beats the five-acre farm described in the Christmas "Farmer's Advocate.") Special acres have repeatedly given him a return of \$1,000 per acre and better. Most of the land originally cost him \$25 per acre, and tillage, labor and fertilizers he puts at \$150 per acre. His home farm in Connecticut broadened from 20 acres to 520, has produced peaches that brought more than half a million dollars. The 400-acre orchard at Seymour, Conn., in the 14 years of its development, has paid for itself, including a large and expensive dwelling house, and many other costly improvements, giving him the great apple orchard free of cost, that could not be bought for \$500 per acre.

The Georgia orchard did not get into full swing of bearing until about 1894, and had produced at the close of 1909 more than a million dollars' worth of peaches, from which had to be deducted the cost of harvesting and marketing. No doubt, these figures look alluring, while, as a matter of fact, nearly 90 per cent. had to go to the other fellow.

HINTS FROM EXPERIENCE.

A few practical hints from Mr. Hale's experience must be noted. Young peach trees cost about \$80 per thousand, and practically all the young peach trees raised in America are the result of budding scions of selected varieties upon native seedling stock grown from peach pits gathered in the mountains of North Carolina and Tennessee. Mr. Hale grows all his own seedlings on the Georgia plantation, using scions from the best-yielding trees. He is afraid of the taint of "yellows" in stock originating north.

The important thing in the site is a hillside where there is good air and frost drainage. Cold air runs down hill like water, and fills the lower levels first. The peach orchard should be high and dry above the high-water mark touched by the ascending level of the frost basin. Tender young trees will stand five degrees more frost when the air is in motion. An orchard on a

hillside will survive a frost that kills the trees on the plateau above or the level at the base. Cropping between the rows of young peaches must not be overdone; corn is ideal for the north; potatoes are bad. Give eternal cultivation in May, June and July, and then the leguminous cover crop about August 1st. The trees do their big growing stunt early. Begin to prune with planting, the roots to four or five inches, and the main stem to fifteen or eighteen inches high. Rub off the sprouts, all but three or four at the top. Keep the tree low, shapely, airy. Always cut above the bud to be developed into a branch. Never stop pruning, but do less from year to year after it comes into bearing.

Fertilize wisely: nitrogen for abundant foliage and more wood; potash, for high color and sweetness to fruit; and phosphoric acid to make hard, solid, slow-growing wood, with moderate foliage.

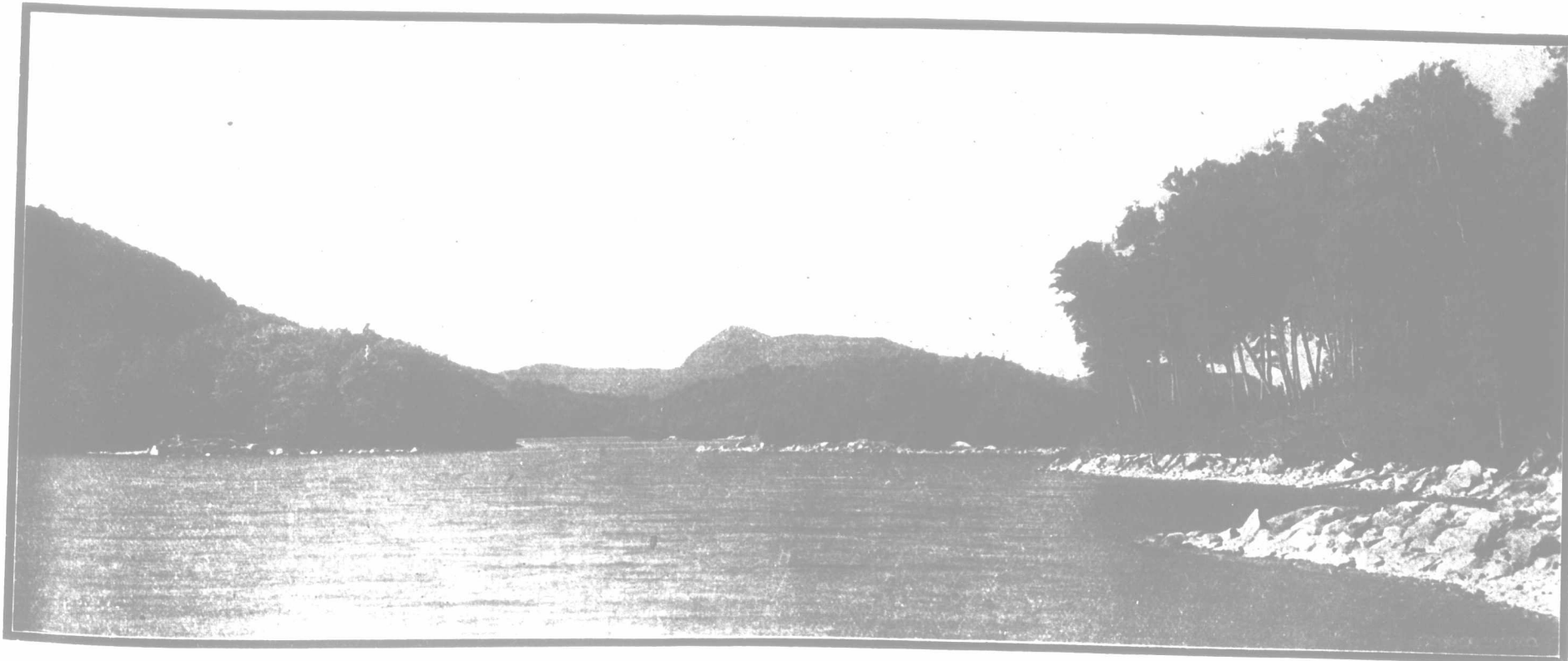
The holes for the trees should be dug two or three months before planting, and two shovelfuls of rotted stable manure put in to soak and leach. Then, before the tree is planted, lift out what is left of the manure and spread on the ground, and add half a pound of a mixture of equal parts basic slag, sulphate of potash and nitrate of soda. Two months later give a similar application. This practice is for the South. In the North, young peach trees should be fed very moderately at the start, so that the growth will not be too quick and tender, but rugged. Mr. Hale practices dormant-season spraying in October, November and December, against San Jose scale in the South plantation. In summer he uses the self-boiled lime-sulphur spray for brown rot and scale, with arsenate of lead added for curculio. The first spraying is done when the bloom shuck falls; the second three weeks later, when the peaches are about walnut size, and the third about four weeks before picking. The whole spraying costs about \$100 per 1,000 trees, and spells the difference between success and failure.

The largest shipment of peaches he ever made was 15 carloads in one day, or 1,575,000 peaches of average size, the biggest volume of fruit ever shipped out of any orchard in the world in one day. That week we shipped 83 carloads, he says.

People who read about taking \$24,000 from one crop of peaches, on 30 acres of stony New England land, may think that must be the easiest money game on earth, but there have been years of black crop failure that looked like a wipe-out; and then, he was a born peach-grower, and has been at it every day of his life. There is more in it for him than the money to be made. It is a life enthusiasm. Those who feel like that, and stick to it through thick and thin, will likely succeed. The other kind will probably fail.

A jackknife is one of the most useful things on a farm. We will send you your choice of a Joseph Rodgers Jackknife or Penknife for sending in one new subscriber to "The Farmer's Advocate" and Home Magazine. Look up the particulars of these and read about the other premiums in our announcement on page 115 of this issue.

Farming, without difficulties to surmount, like a life freed from obstacles, will not shine in its achievements.



Lake Memphremagog.

There are forests that kneel forever  
Rolled in the dreamiest haze.

That God sends down in the summer  
To mantle the gold of its days.

Kneeling and leaning forever  
In winding and sinuous bays.

**"Air-plant" or "Air-fern"?**

Several correspondents have been inquiring about the nature or proper treatment of a decorative fernlike article which for the last four or five years has been sold under various names, most commonly as "Japanese air-fern." The reported experience of some people illustrates the effect of the imagination, as more than one has honestly averred that the "plant" had grown an inch or two since they had got it.

The substance, although fernlike, is not a fern or plant of any kind, but the skeletal structure of a colonial animal that lived in the ocean, a little higher in the scale of development than the sponge. The slimy, semi-fluid "flesh" has been removed, and the skeletal or chitinous support dyed in aniline green. With the aid of a good lens or microscope one can see the little flask-like extensions from the tubular, horny fibres, each of which once contained a tentacled hydroid, whose life-history is almost identical with that of the so-called "coral insect."

J. D.

**POULTRY.**

**Egg Production in Winter.**

Editor "The Farmer's Advocate":

A great many people who raise poultry find it a hard matter to get the hens to lay in the winter, while others, again, have no trouble. For winter layers, one cannot count so much on the older stock as on the pullets, and they should be hatched early, say about the 21st of April. Incubators will have to be used mostly, as it is a difficult matter to get hens to sit so early. Another important feature is the way the chickens are raised during the summer. They should be well looked after, and one should see that they get plenty to eat, and have a dry place to stay when the weather is wet. Chickens will do the best if they are given free range and fed by the hopper system with feed in hoppers where they can get it whenever they feel like eating. It will take a lot of grain if they are fed this way, but they will not gorge themselves, and young chickens always seem to be hungry when fed three times a day, but with feed before them all the time they seem satisfied. During June and July you may get rid of the young cockerels that you don't wish to keep for breeding, as broilers, and a good price may be had for them. By the first of October, you should have all the pullets in their winter quarters, and ready for laying; some of them will be laying by this time if they have been fed well. Early-hatched pullets will not always lay when they reach maturity, while others, again, which are from a good laying strain which laid well, will be very likely to hand down some of their traits of character to their children. Next comes feed for laying pullets. We have somewhere near eighty, which are doing nicely for not being hatched till May. Am feeding mostly wheat, and getting good results, as I think there is everything in wheat necessary for eggs. Feed wheat in morning in deep litter, scatter around in pen, take a fork and stir up well, so as to make them work. At noon feed wet mash, scraps from table, cooked peelings, etc., mixed with chop; feed this warm, and do not feed very heavy, but give a good feed of mangels hung up on nails around pen. At night feed wheat and buckwheat, often giving a feed of corn on the cobs to pick. Give them all the buttermilk they will drink, with clover chaff fed in racks. About twice a week a feed of green-cut bone is given, with plenty of oyster-shell.

The houses should be moderately warm, and kept clean; drop-boards should be cleaned out once a week, and litter taken out as soon as it gets wet. With eggs from thirty-five to forty cents a dozen, it pays to take an interest in poultry. You can succeed only by doing the many little things which are called for by the business.

Perth Co., Ont.

HUGH McKELLAR.

**Tasmanian Egg-laying Contest.**

Details have reached "The Farmer's Advocate" of the first egg-laying contest, conducted under the supervision of R. J. Terry, poultry expert, during 1910, in the "Springvale Gardens," New Town, Tasmania. The first prize went to O. H. Olsen, White Leghorns, 1,248 eggs; second, L. S. Hyland, White Leghorns, 1,179; third, A. G. Genders, White Wyandottes, 1,155. The details of the competition were as follows:

Duration of competition	12 months.
Number of pens	28.
Number of birds in each pen	6.
Number of birds	168.
Total number of eggs laid	27,196.
Total value of eggs laid	£133 15s.
Average price of eggs	18. 2d. per doz.
Average number of eggs per pen	998.
Average number of eggs per bird	164.
Highest number per pen	1,218.
Lowest number per pen	410.
Highest number of eggs laid by single pen in one month	1,666.
Cost of food per hen	6s. 9d.

Value of Food Consumed.

	£	s.	d.
Oats	17	4	8
Bran and sharps	18	0	4
Barley	3	11	9
Peas and pea meal	4	12	0
Maize, wheat, and sundries	4	17	0
Shell-grit and grit	1	3	6
Cut bone, meat meal, and skim milk	4	4	9
Green food	3	0	0
	£56	14	0

five months, beginning June 1st, and received 2,231,498 pounds of milk; the total cheese made, 212,665 pounds. It took 10.49 pounds of milk to make a pound of cheese. The average price for cheese was \$10.76, and the average net value of milk per 100 pounds to patrons was 80.895 cents. This factory divided the proceeds to patrons by the butter-fat test, plus 2 per cent. The value of total output of cheese was \$22,892.32, and the charge for manufacturing was \$2,765.13; milk-drawing cost \$1,958.83. The cheesemaker got 90 cents per hundred for making and supplies, and the company charged the patrons \$1.30 per 100 pounds for manufacturing. The company had a balance of \$176.40 on the season's transactions.

**THE FARM BULLETIN.**

**The Old Land and the New.**

Once again we have started on the New Year with glad hearts, and wishing "The Farmer's Advocate" a still wider circulation in the future. As a resident and a farmer in this country for only six years, I cannot but notice the prosperity of Canada, and its chances for a man with a small capital, compared with the conditions in the Old Country, where land is almost unattainable for the man with small capital; also the difference of the classes, or the man and his employer. I have known in certain localities. If a man offended his employer, he would certainly have to move a great distance away to get a position on the farm. This is more noticeable where men are hired by the year, as the farmers combine against him, unless he goes at a reduced pay for a smaller farmer. This is one of the curses working men have to contend with in England, and it is driving many a good honest man away from the land to the large cities, causing inconvenience to the farmer, and also to the servant. Many a man would rather stay in the country, if he were treated more liberally, and given a freer hand. I was somewhat agreeably surprised to find the condition in Canada as altogether different. Here we have a free country, and are more on an equal footing. As a farming country, a man with small capital can show his ability, if he studies the requirements of the land. By giving back to the land according to what he receives, his returns will be great and sure. I am sure, if the people farmed in England as a great many farmers are doing in some districts in Canada, there would be many an

average settler. Of course, in some townships surrounding New Liskeard they have most of their timber cut and drawn off their places, and, in consequence, they are going in quite extensively for farming. A grist mill in the vicinity of New Liskeard station is ready for operation, and farmers will now go more generally into raising wheat and consumption.

**A Temiskaming Settler on Reciprocity.**

The winter is interestingly cold here, but pleasant for the bushman, as the snow is drier—just the time for cutting and skidding, and there is a large quantity being got ready; in fact, the timber here yet is the largest harvest for the



An Approved Type of Henhouse, at Macdonald College.

empty homestead. But almost every product there is giving back to the land. If a farmer sells his grain, he buys some other feed back, or some fertilizer. He is looking ahead to enrich his land for the next crop. I believe Ontario would be one of the best farming countries in the world if we would give it the chance, by growing more clover and feeding our grain, working our land better, and letting our crops walk off to market in the shape of live stock.

OLD COUNTRY JOE.

**P. E. Island.**

So far (January 5th), we have had very little severe weather, and scarcely any snow; zero has been the coldest recorded. Stock is in fine condition, with abundance of feed in sight for winter. The farmers are turning their big crop of clover into beef and dairy produce, at a good profit, as prices of these articles are both good. Considerable cream is being shipped from the Island to Boston this winter, as it is more profitable than churning it here. Only cream testing from 45 to 50 per cent. butter fat is received for this trade, as the duty is by the gallon. The prices obtained by the patron for butter fat equals about 28 cents per pound for butter. This cream shipping business is likely to be continued next summer by some of the dairy companies that are located near the port of call of the Boston steamers.

The dairy companies are now issuing their statements of the year's business. The returns at both cheese and butter factories are both satisfactory. The printed statements of the largest cheese factories in New Brunswick will give an idea of what all the parties are doing. This factory produced 2,231,498 pounds of milk; the total cheese made, 212,665 pounds. It took 10.49 pounds of milk to make a pound of cheese. The average price for cheese was \$10.76, and the average net value of milk per 100 pounds to patrons was 80.895 cents. This factory divided the proceeds to patrons by the butter-fat test, plus 2 per cent. The value of total output of cheese was \$22,892.32, and the charge for manufacturing was \$2,765.13; milk-drawing cost \$1,958.83. The cheesemaker got 90 cents per hundred for making and supplies, and the company charged the patrons \$1.30 per 100 pounds for manufacturing. The company had a balance of \$176.40 on the season's transactions.

NEIL A. EDWARDS.

# ANNUAL MEETING ONTARIO EXPERIMENTAL UNION.

One of many problems which the Ontario Agricultural College has constantly had to solve has been how, in the greatest degree, it might get to the country at large a goodly part of the fruits of its experimental work. For long, the Farmers' Institutes and the agricultural press have to a moderate extent been the connecting link between the people and the best theory and practice, and, during the last few years, the County Representatives of the Department of Agriculture have been virtually serving to bring the college practices to farming communities. Thirty-two years ago the Experimental Union was organized as a means of getting farmers in all parts of the Province actually practicing what has proved best at the College, and to try out new crops, methods and practices that seem adapted to the various communities. Yearly these co-operative experimenters, who are largely students and ex-students, have met in annual convention to digest the results of the year's work. Heretofore, this Union has been held during the Ontario Winter Fair week, but this year they met Jan. 10th, 11th and 12th. Judging from number of ex-students and farmers present, it is a question whether the change has been for the best; that is a problem for the executive to determine upon.

The actual attendance has been somewhat hard to estimate, on account of the presence of the regular and short-course students; usually there have been many more at the meetings. An excellent and fully inspirational programme was presented. To give an added zest to the regular programme of experimental tabulation, came the Hon. Sydney Fisher, Dominion Minister of Agriculture; C. C. James, the illimitably energetic Ontario Deputy Minister of Agriculture; G. H. Clark, the weed exterminator of the Dominion; J. Lockie Wilson, the Fair enthusiast of Ontario; and G. A. Putnam, the Executive Supt. of Ontario Farmers' Institutes. It seemed almost a pity that but a scant four hundred, of whom a large proportion were students, should have been the extent of the attendance upon so varied and interesting a programme.

## HON. SYDNEY FISHER.

In his evening address, Hon. Sydney Fisher, Minister of Agriculture for Canada, emphasized the value of educational training in farming. The man who succeeds is the man who uses his brains. It is no longer true that the men in other walks of life are obtaining more money for their labor than the farmer. Soon the tendency of population will be from the city to the country. The fact that Canadians are not intensive farmers was emphasized, and that more thorough cultivation is certain to greatly increase Canada's farm production. For the last year, Canada's total grain crop was short 25,000,000 bushels, while the hay and forage crops were 14,000,000 in excess of the previous year. It would be no great trick, by thorough cultivation, to increase the total crop twenty per cent. This must be done by the application of more applied knowledge.

The Minister further emphasized the importance of cow-testing on dairy farms. Seventeen thousand tests were made in 1906, sixty-four thousand in 1910. The men who started testing are continuing it, thus proving its usefulness. The increased home consumption is overtaking production in cheese, and especially in butter.

## MARKETS AND LABOR.

C. C. James emphasized the important position of the farmer nationally. "The leading question in all the country to-day is, 'What is the relationship of the farmer to the important questions of the day?' He discussed the two great questions related to the business of farming, viz., the market and labor. Regarding the first, in most lines of farm operations there is an excellent market, greatly strengthened by the increasing of home consumption. In horses, poultry, dairying and horticulture there are excellent markets. In Ontario, Mr. James expressed the opinion that for labor much higher prices would have to be paid to get the supply, and better conditions of living provided. This can be done only by more improved methods. Labor cannot be had at the higher prices while the older methods of agriculture are followed, but farming must be reduced, as far as possible, to more exact business methods. To solve the problem of the indifferent farmer, the members of the Experimental Union and the College graduates must everywhere be revitalizing agents in all communities.

## EXPERIMENTS IN TWELVE DEPARTMENTS.

The secretary's report showed that experimental work was being conducted by the Union in 12 different departments; however, most work is done in connection with farm crops, in which, during the five-year period, from 1906 to 1910, there was an average of 4,278 tests made, many of which were made by men who had never attended the college, and quite a large number have carried on work for five successive years. Such results for their localities are worth more than any that may be accomplished elsewhere.

## TARIFFS AND SCHOOLS.

President G. S. Henry, of Oriole, York Co., in an able address, touched upon the causes which are frequently cited as working against farm interests, enumerating the tariff and the school system. Dealing with the tariff, he intimated that farmers of the East were not such a unit in favor of reduction as those of the West. The educational system, he charged, educates boys off the farm, but attributed partly to the attitude of the parents the tendency of their brightest boys entering other professions. He advocated the introduction of physical culture, the study of the beautiful, and school gardens, into our school systems, and the general education of our whole rural population to a proper appreciation of the country and the dignity of the farming profession.

## BENEFIT FROM LEGUME INOCULATION.

The co-operative work in seed inoculation with legume bacteria was reviewed by Prof. S. P. Edwards. This work has been executed for six years. The percentage of reports favorable to such practice for the various crops has run from 54 to 67, the average for six years being about 60 per cent. A supplementary report in 1910, for inoculation made in 1909, showed that in 62 cases for alfalfa, and 63 cases for clover, out of 100, there was a 10 to 15 per cent. increase in the crops.

## CO-OPERATIVE GRAIN AND ROOT EXPERIMENTS.

The reports on co-operative experiments with grain crops, presented by Prof. C. A. Zavitz, put the Liberty, a white, spreading oat, at the top of the list in yield of grain per acre of the four varieties sent out in 1910, the yield being 52 bushels; Siberian, 50; Yellow Kherson, 47, and Dauboney, 44, follow in order.

Barley, Six-rowed—O. A. C. No. 21, 41 bushels; Success, 30. In two-rowed sorts, Hanna led with 34 bushels; Two-rowed Canadian, 29; Hulless, Guy Maile, 22; Black Hulless, 21.

Spring Wheat.—Wild Goose, 25; Red Fife, 22; Hungarian, 22.

Buckwheat.—Rye, 20; Silver Hull, 14.

Common Emmer, 34; Alstrom Spelt, 32.

Winter Wheat.—American Wonder, 31 bushels; Imperial Amber, 27; Tasmania Red, 27.

Winter Rye.—Mammoth White, 23 bushels; Common, 22.

Field Peas.—New Canadian Beauty, 26 bushels; Early Britain, 25.

Field Beans.—White Wonder, 21 bushels; New Prizewinner, 20; Marrowfat, 20.

Corn.—Wisconsin Little Dent, 45 bushels; Gene-see Valley, 40; King Philip, 36.

Mangels.—Ferry's Yellow Leviathan, 23 tons; Ideal, 22; Sutton's Mammoth Long Red, 22.

Sugar Beets.—Bruce's Giant Feeding, 27 tons; Rennie's Tankard Cream, 22.

Swede Turnips.—Carter's Invicta, 17 tons; Steele-Briggs' Good Luck, 16; Rennie's Prize Purple-top, 14.

Fodder Corn.—Henderson's Eureka, 14 tons; White-cap, 10; Sterling White, 10.

Millet.—Japanese Panicle, 11 tons; Hungarian Grass, 10.

Definite data re alfalfa seed is not yet available. At the College farm, an average during 13 years, of 21 tons green crop has been grown per season, three cuttings; cured hay, over 5 tons.

More complete details of these reports will be given later in the season, when the selection of varieties for seeding will be more appropriately under consideration.

## FERTILIZERS WITH FARM CROPS.

### FERTILIZERS WITH OATS.

Seventy-four good reports of successfully-conducted experiments in applying fertilizers to oats were received during the five years in which this experiment was conducted over Ontario. The lowest average yield was obtained from the unfertilized land, 38.9 bushels per acre; and the highest average yields from the mixed fertilizer, 48.7 bushels; and the nitrate of soda, 46.3 bushels per acre. The unfertilized land produced the lowest yield per acre in each of the five years. The mixed or complete fertilizer gave the largest yield of oats per acre in the average results of this experiment in each of the five years in which it was conducted. Although the land which received the mixed fertilizer gave an average of 9.8 bushels of oats per acre more than the unfertilized land, still this increase was produced at a cost of about 42 cents per bushel, according to the present prices of fertilizers. It will, therefore, be seen that it is only in special years that these commercial fertilizers will give economical results with oats on the average land of Ontario. The mixed fertilizer gave a larger average yield than no fertilizer on heavy soils by 12.7 bushels per acre on light soil by 10.2 bushels per acre, and on black mucky soils by 7.1 bushels per acre.

### FERTILIZERS WITH WINTER WHEAT.

In the co-operative experiments with different fertilizers applied to winter wheat, the greatest average yield per acre was produced from the application of cow manure. The complete fertilizer, when applied at the rate of only 213 pounds per acre, gave about two bushels per acre below the cow manure. The land which received the complete fertilizer gave 4.9 bushels per acre more than that which received no fertilizer. The most economical increase in yield of winter wheat was made by the application of the mixed fertilizer, and even in this case the cost of the increased yield amounted to 86 cents per bushel.

### FERTILIZERS WITH CORN.

In the average of experiments in applying fertilizers with corn in each of eight years, during which time forty-seven complete and satisfactory reports were received, the yields of whole crop produced by the plots which received an application of nitrate of soda, muriate of potash, and mixed fertilizer, were equal, while a plot on which superphosphate was applied produced nearly half a ton less than the others, and that the largest yield of husked ears was obtained when the mixed fertilizer was applied to the land. The muriate of potash produced the corn at the least cost per ton, but even with this fertilizer it cost \$3.33 on the average to produce each additional ton of fodder corn.

### FERTILIZERS WITH MANGELS.

During the five years in which fertilizers were used with mangels, forty-one good reports of successfully-conducted experiments were received. These show that the smallest average yield was produced from the unfertilized plot, viz., 20.6 tons per acre, and that the largest average yield was produced from the nitrate of soda, viz., 26.5 tons per acre. As in the case with corn, the unfertilized land gave the lowest yield in each year. The nitrate of soda produced the highest yield in four out of five years. The average of 197 bushels of mangels per acre, produced by the nitrate of soda over the unfertilized land, was obtained at a cost of about 2.4 cents per bushel. The nitrate of soda produced the largest yield on both heavy and light soils, but on the black loams the muriate of potash gave the highest yield of mangels. The nitrate of soda showed the greatest influence upon the light soils, as in the average of fifteen experiments the sandy land, which was fertilized at the rate of 160 pounds of nitrate of soda per acre, gave an average yield of 7½ tons per acre more than the land which was unfertilized.

### FERTILIZERS WITH SWEDE TURNIPS.

From the average results of the five years' experiments with fertilizers and Swede turnips, it will be seen that farmyard manure has given the largest, the complete fertilizer the second largest, and the superphosphate the third largest yield of roots per acre. The increased yield of turnips was produced at a cost of 82 cents per ton by the use of cow manure, and 78.5 cents per ton, or 2.4 cents per bushel by the use of the complete fertilizer.

### FERTILIZERS WITH POTATOES.

Reports of successfully-conducted tests were received from twenty-two experimenters in 1907, sixteen in 1908, twenty-six in 1909, and twenty-one in 1910. The comparative results of the different fertilizers were quite similar in the four years. Of the commercial fertilizers, the three complete manures gave the highest results, and of these, the mixture composed of 53 pounds of nitrate of soda, 53 pounds of muriate of potash and 107 pounds of superphosphate gave a higher yield per acre than either the potato fertilizer or the Royal Canadian, each of which was applied at the rate of 320 pounds per acre. The highest yield of all in each of the past four years was produced by an application of cow manure, at the rate of twenty tons per acre. The land thus treated gave an average of 46.7 bushels per acre more than the land which was unfertilized.

In a few instances a small amount of rot was reported. The largest amount was found in the potatoes which had received the cow manure, and the next largest amount in those which had received either the nitrate of soda or were left unfertilized.

### FERTILIZERS WITH BARLEY.

The fertilizers and the manure gave increased results over the unfertilized land, varying from 2.9 bushels of barley per acre, through the influence of the nitrate of soda, to 10.2 bushels of barley per acre as the result of the application of the farmyard manure. According to the increases in the yield of barley per acre, and the prices of the fertilizers assumed, it is found that on the average for each increased bushel of barley produced by the means of fertilizers or the manure was brought about at a cost varying from 59 cents in the case of the farmyard manure to \$1.03 in the case of the nitrate of soda.

Attention was called to the fact that fertilizer should be used supplementary to, and not in place of, farm manure, if best results were to be obtained.

The effects of fertilizer on swamp soils was reported by Prof. Harcourt. In this work it was strongly demonstrated that only the potash fertilizers were of any value on such lands, but the use of it is highly profitable.

#### FORESTRY

Time will demonstrate the immense value of this line of work; the objectors may have their innings now. Prof. I. J. Zavitz reported that during the last season the Forestry Department distributed or planted about 400,000 trees. About 200,000 were sent out to private planters, and some 200,000 were planted at the Norfolk Forest Station. The material sent out to co-operative planters consisted largely of Scotch pine, white ash, white elm, sugar maple, soft maple, catalpa, and black locust. A number of planters received walnuts, butternuts and hickory-nuts, to be used in planting in wood-lots or plantations. Under the direction of the Schools Section of the Experimental Union, there was sent out 60 collections of forest-tree seedlings. This Department has, during the last five years, sent out to co-operative planters, and planted on Government land, nearly two million forest trees, and have plantations started in about forty counties, although most of the planting has been done in the south-western portion of the Province.

Speaking on suggestions for the young Institute speaker, G. A. Putnam, Supt. of Ontario Institutes, outlined in his desired standard most every requirement that an exacting critic would demand, offering many valuable suggestions for preparation, method and manner of procedure.

#### NOXIOUS WEED SEEDS.

Discussing the noxious-weeds problem, G. H. Clark, of Ottawa, stated that at Port Arthur and Fort William, 57,189 cars of all kinds of grain from the West were screened last year, yielding a total dockage of 1,584,072 bushels, or approximately 1,000 cars, of which 52 cars, in car lots, were distributed in Canada, and, in addition, 52 cars bagged. That bagged was largely used as chicken feed. Much of these screenings is weed seeds, and, while many are injurious as feeds, yet sheep seem to eat practically all with avidity, and thrive. These 1,000 cars of stuff have an immense feeding value, yet in Mr. Clarke's opinion might better be exported as they now are

than distributed, if the vitality of the seeds cannot be destroyed. On this problem the Department is working.

In this connection, the Minister of Agriculture promised that, if the present Feedstuffs Act did not cover the control of these weed seeds as feeds, he would ask Hon. Mr. Templeman, Minister of the Inland Revenue Department, to have it so amended, as he considered weeds the most serious menace to Canadian agriculture.

That Ontario Agriculture is not on the wane, J. Lockie Wilson, of the Ontario Department of Agriculture, proved, by showing that the crop of 1910 in Ontario exceeds the crop of 1909 by over 25 million bushels of grain and roots, and over two million tons of hay and fodder corn. Only in peas, potatoes and turnips was there a decrease. This, too, had been accomplished with 60,000 fewer people on Ontario farms. He emphasized the necessity of starting our new settlers in our newer country with clean seeds. Outlining the benefits of the competition in field crops, he showed that there resulted an increased production of pure seed, and a higher market value for it; a greater rotation of crops, improved cultivation, weed eradication, and a wider market.

One of the most stimulating addresses of all the sessions was that of President Creelman, upon the efforts being made for a better agriculture. First among the efforts to improve agricultural conditions stands the County Representative. More education of a better sort is needed throughout the country. "The bane of many country districts is the isolation thereof, and its monotony." "Practical demonstrations are worth more than addresses, charts or papers." "Better wagon roads, rural mail delivery telephones and trolleys are needed throughout the country."

Prof. S. B. McCready reported the results of the Schools Division in extension work in the rural schools of the Province.

#### OFFICERS FOR NEXT YEAR.

President, W. J. Lennox, Newton-Robinson, Ont.; Vice-President, F. W. Goble, Woodstock; Secretary, C. A. Zavitz; Assistant Secretary, W. J. Squirrel; Treasurer, Prof. Hutt.

For sending in only three new subscribers to "The Farmer's Advocate and Home Magazine" you may secure a set of Staghorn Carvers. Look up the particulars and read about the other premiums in our announcement on page 115 of this issue.

#### Drainage Repairs and Taxes.

Editor "The Farmer's Advocate":

I would like to submit a suggestion for the consideration of ratepayers and township officials, that ditches and drains, after having been properly constructed—examined and passed upon where necessary by a competent engineer—could thenceforth be maintained at a much less cost than that involved under the present system. Simply let a by-law be in force requiring each ratepayer to remove obstructions or silt from time to time as expediency might suggest, from his portion of the ditch or drain, at his own expense. Maintenance of drains would involve slight cost of labor, if debris were removed promptly or at frequent intervals, instead of being allowed to accumulate, causing increased obstruction from year to year. The usual practice is to allow drains to get seriously out of repair from the action of accumulating sediment and driftwood, to the extent even of a general deposit along the course of the drain. Finally some ratepayer wakes up and begins to complain that his farm is being damaged by water through the inefficiency of the drain in which he happens to be interested. Then the council is notified, a by-law is prepared, funds are negotiated for, an engineer is employed and empowered to examine said drain, prepare plans and specifications, determine levels, and have oversight of work. Then follow courts of revision, possible appeals to higher courts, heavy total expenditure involved; the whole drama repeated at intervals of a few years, it may be, before the previous debt has been liquidated. And then, a ratepayer may be burdened with three or four of these cases concurrently. If drains were to be kept in repair by the method I have suggested, viz., by each man interested performing as the need arises, his share of the work, the original character and service of drains could be maintained at small expense for an indefinite period. I speak from personal experience with drains on and about my own farm. In a period of about thirty years I have rarely had occasion to return a team into a farm drain after it has once been properly constructed—excepting "flat" ditches. My method has been to examine outlets occasionally with shovel in hand, removing any deposit or debris found, thus giving the water free course. In this way, with a few minutes or an hour's occasional work, what might have occupied days or weeks has been obviated. I believe that if the above suggestions were carried out, a material lowering of taxes would result, and there would be fewer dissatisfied ratepayers.

Kent Co., Ont. W. J. WAY

## WESTERN ONTARIO DAIRYMEN AT STRATFORD.

Another meaty programme, profitable to makers and milk producers, was provided for those who attended the forty-fourth annual convention of the Dairymen's Association of Western Ontario, held last week in Stratford, the "Classic City." While the local attendance was not particularly large, a goodly representation of delegates were present from a distance to learn at first hand the results of the past year's developments in dairy progress.

President J. H. Scott, in his opening address, referred to the quality of Perth County cheese as being the first in Ontario, and first in the world. Since the association last met in Stratford, quite a change had taken place in the butter trade. At that time there was quite a large export to Britain. Now the butter export trade is practically nil, shipments from the port of Montreal last year being 12,000 boxes less than in 1909, though the receipts at Montreal had increased by 42,776 boxes, showing how home consumption is increasing. In addition, we had during the year exported to the United States cream equivalent to 25,000 boxes of butter. Our creamery production is increasing, but the output is going into different channels.

The directors' report noted that although the price of cheese had not been very high, the heavy production should make the season fairly profitable for the producer. Prices for butter have been nearly as good as last year. The make has increased largely, and a still greater increase in the butter industry is predicted. Stress was laid upon the necessity of being constantly alert to improve the quality of both butter and cheese.

#### DAIRY HERD COMPETITION.

The report of the dairy herd competition continued again this year, was submitted by the Secretary-Treasurer, Frank Ibens. As previously noted in these columns, some changes were made in the manner of awarding the prizes, there being two classes for cheese-factory patrons and two classes for patrons of creameries. The first section in each case was for patrons with from 8 to 14 cows (inclusive), and the second section for patrons with herds of more than 14 cows. There was also a sweepstakes medal for patrons of cheese factories, and another for patrons of creameries, the medals being donated, as before, by Ryrie Bros., of Toronto. The cash prizes offered by the association aggregated \$100, but the sections

were not all filled. In the case of cheese-factory patrons, the prizes in each section were for the first, second, third and fourth largest amounts of milk per cow delivered to a cheese factory in Western Ontario from May 1st to October 31st, 1910. The creamery prizes were for the first, second, third and fourth largest amounts of butter-fat delivered to a creamery in Western Ontario in the same time. A note of interest is that the competitors have raised the standard for the amount over previous years. Awards follow:

Cheese-factory Patrons: Class 1, Sec. 1.—1. John VanSlyke, Silverside, Dunboyno, Ont.; 100 acres in farm; 10 Holstein-grade cows; 75,426 total pounds of milk; 7,542 pounds of milk per cow; 754.26 pounds milk produced per acre.

2. Seymour Cuthbert, Sweaburg, Ont.; 75 acres in farm; 14 Holstein-grade cows; 103,871 total pounds of milk; 7,419 pounds of milk per cow; 1,385 pounds of milk produced per acre.

3. Jno. W. Cornish, Sprucedale Farm, Harnetsville, Ont.; 50 acres in farm; 10 Holstein-grade cows; 70,629 total pounds of milk; 7,062 pounds milk per cow; 1,412.5 pounds of milk produced per acre.

4. Wm. W. Bartley, Poplar Grange, Belmont, Ont.; 50 acres in farm; 5 Holsteins and 3 grade Shorthorns; 51,775 total pounds of milk; 6,472 pounds milk per cow; 1,035.5 pounds of milk produced per acre.

5. Isaac Askin, Fairview, Carthage, Ont.; 100 acres in farm; 12 Holstein cows; 62,972 total lbs. of milk; 5,247 pounds milk per cow; 629.72 pounds of milk produced per acre.

Class 1, Section 2—1. W. S. Pearson, West View, Holbrook, Ont.; 100 acres in farm; 20 Holstein and Holstein grade cows; 122,570 total pounds of milk; 6,128 pounds milk per cow; 1,225.7 pounds of milk produced per acre.

Creamery Patrons: Class 2, Section 1.—1. R. M. Bowie, Maple Lane, Beachville, Ont.; 50 acres in farm; 11 Holstein grade cows; 2,179.8 total pounds of butter-fat; 225.1 pounds of butter-fat per cow; 49.6 pounds butter-fat produced per acre.

2. Geo. Bouchard, Echo Farm, Plattsville, Ont.; 25 acres in farm; 8 Jersey grade cows; 29.7 total pounds of butter-fat; 152.3 pounds of butter-fat per cow; 48.7 pounds of butter-fat produced per acre.

3. C. Johann, Fairview Farm, Belmont, Ont.; 200 acres in farm; 9 Holstein-grade cows; 1,341 total pounds of butter-fat; 149 pounds butter-fat per cow; 6.7 pounds of butter-fat produced per acre.

Class 2, Section 2—1. E. W. Lick, Beachville, Ont.; 250 acres in farm; 16 Holstein-grade cows; 3,279.6 total pounds butter-fat; 204.97 pounds of butter-fat per cow; 13.1 pounds of butter-fat produced per acre.

2. Wm. Hutchison, Pleasant View, Princeton, Ont.; 200 acres in farm; 21 Shorthorn cows; 3,503 total pounds butter-fat; 166.8 pounds of butter-fat per cow; 17.5 pounds of butter-fat produced per acre.

3. Courtney Carr, Ingleside, Beachville, Ont.; 100 acres in farm; 22 Ayrshire and Jersey-grade cows; 3,238.5 total pounds of butter-fat; 147.2 pounds butter-fat per cow; 32.38 pounds butter-fat produced per acre.

Sweepstakes Medals—Jno. VanSlyke, Dunboyno; R. M. Bowie, Beachville.

#### PROFITABLE DAIRYING.

N. P. Hull, of Dimondale, Mich., President of the American Dairy Farmers' Association, who addressed the Western Convention at St. Thomas last year, and the Eastern Convention at Perth two weeks ago, entertained the delegates at the first afternoon session with a racy address, following somewhat closely his St. Thomas speech, quite fully reported a year ago. Two propositions he enumerated: (1) Aim to sell as many dollars' worth of produce as possible that shall carry the largest percentage of profit. (2) So handle the farms as to maintain and increase the fertility of the soil.

Returns of the dairy are regular and steady, with less speculative risk than is involved in buying cattle to fatten in anticipation of future markets. Dairying offers a man an opportunity to realize on his brain product a little better, perhaps, than other lines of farming.

Examples from cow testing work in Michigan were cited to show the difference in cows and in districts. The cow testing work there is conducted a little differently than in Canada, an expert being employed to go out testing the cows, weighing the feed, etc. In one neighborhood were two farms a mile apart supplying the same fact milk, kept on farms with the same sort of land

Taxes.

tion for the ship officials, g been prop- upon where could thence- s cost than in. Simply ch ratepayer ime to time a portion of use. Main- ight cost of y or at fre- owed to ac- n from year llow drains e action of to the ec- the course r wakes up being dam- ncy of the sted. Then are, funds eployed and pare plans ave over- of revision, y total ex- epeated at before the nd then, a or four of ere to be suggested, ing as the e original d be main- ite period. drains on d of about to return once been ditches. n occasion- deposit or ee course. an hour's apied days ve that if a mate- and there

The first yielded 6,292 pounds milk and 303.8 pounds butter-fat a year, the second 3,332 pounds milk and 140.4 pounds butter-fat. The value per cow of the first herd's product was \$89.48; of the second's, \$38.20. The first dairyman fed fifteen dollars' worth per cow less roughage than the other, but three times as much value of concentrates, his total for concentrated feed being \$11.52 per cow. The total value per cow of the feed used by the first dairyman was \$35.81; of the second, \$42.83. The first made a net profit per cow of \$35.81, the second a loss of \$4.63. One man received \$2.49, and the other 88 cents, for each dollar's worth of feed fed. One man was a dairyman, the other wasn't. Three essential principles in successful dairying are: (1) Good cows; (2) the right kind of feed, and plenty of it; (3) the right sort of care.

The trouble with some cows is that they came too near being horn steers; they are not dairy cows at all. How many of you have real dairy cows? From the records in Michigan, it appears that the average dairyman is putting in three years of his life to accomplish what he could just as well accomplish in one year with better cows. He had seen men working hard, their wives working harder than any woman ought ever to be expected to work, and the children kept out of school. Alongside was another man, not working either himself or his family nearly so hard, but making more money because he followed the right methods. Many cows are condemned because they have never had a decent chance. A cow must have food out of which she can make milk, and plenty of it. The great trouble with feeding is that the majority haven't enough faith in the dairy cow to give her all she ought to have to eat.

Dairying, said Mr. Hull, had solved the problem of help on his farm, by providing profitable, all-the-year-round employment.

IN FAVOR OF RECIPROCITY IN DAIRY PRODUCTS.

That many of the dairymen, and especially the milk producers of Western Ontario, are actively in sympathy with the idea of better trade relations with the United States, was manifested at a special meeting of dairymen who remained after the adjournment of the first afternoon session to discuss a resolution similar to the one passed the previous week at Perth. In announcing this adjourned meeting, President Scott desired it to be clearly understood that the Dairymen's Association was not considering this matter at its sessions. The directors considered that, in taking up a question of this kind, they would be trenching upon politics—something which they have always endeavored to keep clear of. Their work was education. He therefore closed the session of the convention, and left it open for the meeting to nominate a chairman. Mr. Scott being then

chosen from the floor, acted as chairman of the meeting.

The following resolution was then moved by J. A. Biehn, of Bright, and seconded by Geo. Rice, of Tillsonburg: "That the Dominion Government be respectfully but most strongly urged, in the negotiations now pending between Canada and United States, to provide for complete reciprocal free trade in all lines of dairy products." Referring in approving terms to the effort to increase average production and profits per cow, Mr. Biehn asked of what avail would it be unless we retained our present market and reached out for a butter market? Here is Western Ontario, wedged in between the great consuming population of the United States, with its ninety millions of people, whose consumption of food products is rapidly overtaking production. He estimated that his own profits last year as a dairyman would have been increased \$200 had we had access to the United States market.

Mr. Rice, speaking somewhat along the lines of his recent article in "The Farmer's Advocate," urged that if farmers were to get anything, they would have to stand shoulder to shoulder. He understood that the Manufacturers' Association, with its highly organized effort, was proposing to eliminate party politics from their position on the tariff. Farmers should do the same. He believed the United States was about at the end of its tether, so to speak, and would soon be an importing nation. To-day we could do better with our dairy products in the markets of the United States. He would have Canada, while standing on her dignity as a young nation, meet the United States in a friendly spirit as a neighboring nation.

Some points on the other side of the case were presented by J. J. Parsons, of Jarvis, Past President of the Association, who doubted whether many of the members had given it the necessary attention to weigh it fairly. There was a time, thirty or forty years ago, when Canada needed reciprocity badly. The United States denied it, and their refusal was the greatest blessing that ever happened this country. It threw Canadians on their own resources. The position as to reciprocity is now reversed. We have a growing home market of our own that increased \$2,000,000 last year. He referred to the East and West railways and canals we have been building largely with British capital invested here to the tune of hundreds of millions. He thought we should not disregard that lightly.

W. L. Smith, Editor of the Weekly Sun, in an incisive, three-minute speech, pointed out that this was not a question of forty years ago, but of the present. To-day, everything the farmer has to sell is a good deal higher across the line than here. Cheese is three cents a pound higher in New York State than in Ontario; live stock about \$1 per cwt. higher in Buffalo than in our

markets. Fifteen years ago the Americans were exporting to Britain as much cheese as we are sending now. To-day that country is importing cheese. Where can the food supply of that country come from better than from Canada? He believed the opening of the American market to Canadian farm products would raise the value of our farm lands 25 per cent., and how could we better increase the value of European investments in Canada than by increasing the prosperity of Canadian agriculture, the foundation of the country's prosperity?

The resolution carried, two or three times as many voting for it as against.

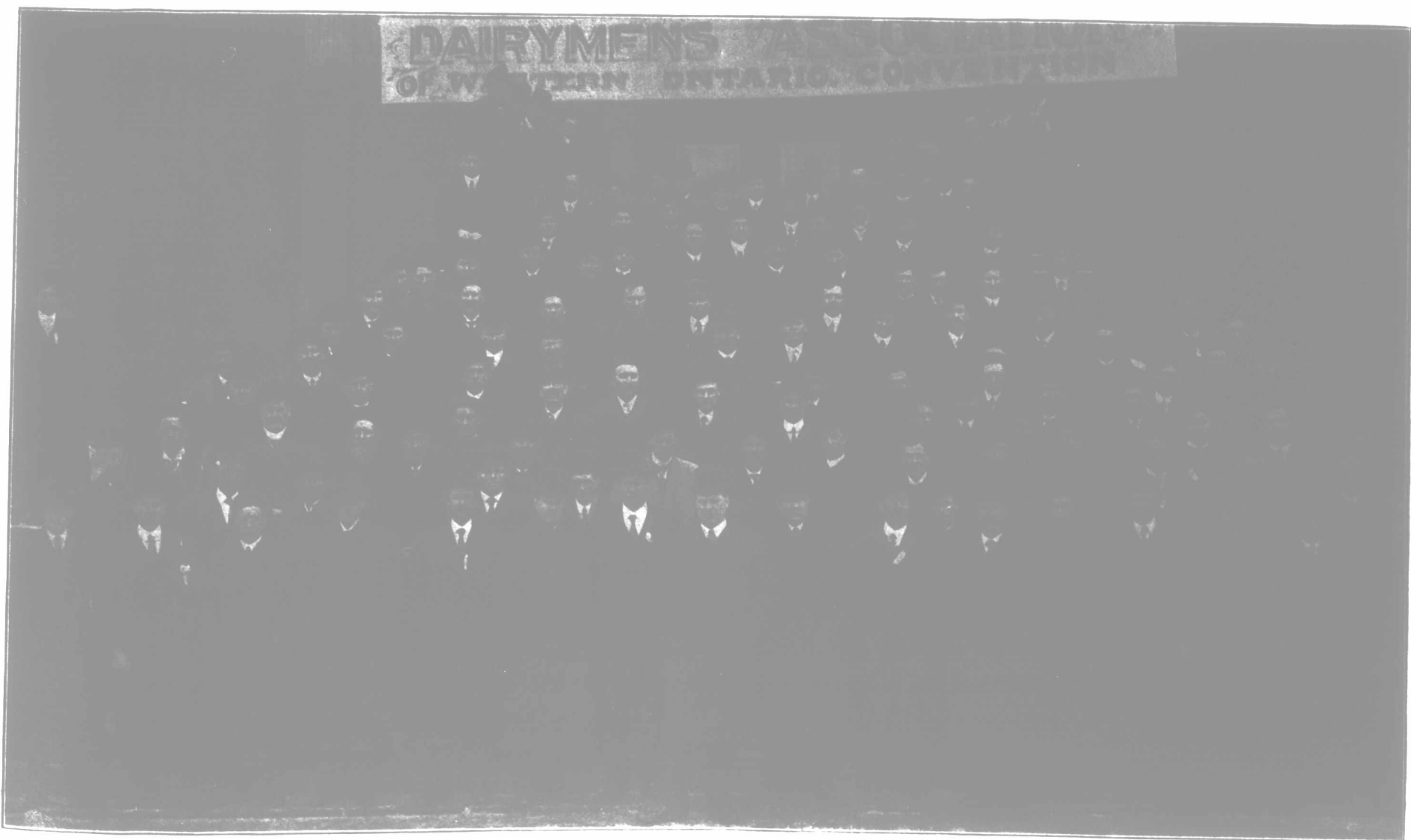
HON. MR. DUFF ON RECIPROCITY.

In his evening address at the session following this special meeting, Hon. Jas. S. Duff, Minister of Agriculture for Ontario, spoke against reciprocity, urging the preservation and development of home markets. "Before we commit ourselves to reciprocity, we should ask what will become of our home market, which to-day takes nearly 80 per cent. of our products. This home market is the most important. The United States has a 12-per-cent. tariff against us, while we have 27 per cent. Let them take down the bars to about 27 per cent., and then we will talk. I have never made any bones about my stand on this matter, and I don't force my opinions on any man, but what I ask our people to do is to weigh this matter carefully, for you can't change the tariff in one respect without affecting it in others."

In the non-controversial portion of his address, Mr. Duff referred to the great development of the fruit industry in the Niagara District, in Lambton County, and elsewhere. Ten years ago there was a certain 200-acre farm near Grimsby, supporting the owner, his family, and hired help. There are now 41 families living on that 200 acres, which has been partitioned into small parcels, and every acre planted to fruit. Farmers in other sections are personally interested in this intensive development, because every farm devoted to such production lessens the competition in general farm produce. The people of Ontario, he said, don't know half the truth about their own Province.

KEEP CLEAN; COOL QUICKLY.

"Keep the milk clean as possible, and cool promptly to about 55 degrees, to check the multiplication of the few bacteria that will gain access in spite of the best of care," was the lesson of Prof. S. F. Edwards' illustrated lecture on "Bacteria and Bad Flavors in Milk." A slide was displayed representing plates made from the fore milk of a cow, showing numerous colonies of bacteria. Milking the first few streams into the gutter or a special vessel, was the evident inference to be drawn. Another slide showed a double white streak, representing colonies of bacteria de-



Western Ontario Dairymen at Stratford.

veloping from a hair introduced into the milk; so of stable dust, flies, and rinsings from an improperly-washed can (i.e., not thoroughly scalded). It was very graphic. Similarly, the effect of temperature was illustrated, by showing a slide representing the progeny of one bacterium in 24 hours, at 50 degrees, and the progeny of one in the same time at 70 degrees. The first one had increased to only five or six, while the bacterium favored with the higher temperature had increased to a great colony, which, when magnified, looked like the proportions of a swarm of bees. Similar contrast was shown in the development of bacteria in milk allowed to cool naturally, and milk cooled with water, according to the manner recommended by Mr. Barr.

#### TREMENDOUS WASTE OF ENERGY.

That a Niagara of energy is going to waste in the form of labor expended on unprofitable cows, was the metaphor used by C. F. Whitley to drive home the importance of cow-testing. We have been sitting down and looking at the low average production of our herds and being content with it, whereas it is a milestone that should long since have been left behind. Out of a group of five hundred cows of which they had records, the average of 142 good cows made as much profit as 42 of the poorer cows. Soaring into the realm of calculation, Mr. Whitley estimated that something like 19,000,000 hours' time must be wasted in looking after poor cows. Talk about conservation! Our dairymen's energy needs to be conserved. Is not humanity better worth while than tons of coal or thousands of lumber? He urged that factorymen should interest themselves in this problem. The weigh-stand should be the consulting ground of the interested specialist, which every factoryman ought to be.

As emphasizing the fact that many good cows are underrated, he submitted the statement that three cows now holding world's records for milk and fat production had been sold within the last few years as ordinary cows for ordinary prices. The real essence of profitable dairying is to get at the details about these cows.

A chart was submitted, showing increases in average production that had been brought about by a number of dairymen since adopting cow-testing. At the head of the list was S. A. Freeman, of Culloden, whose 70 cows had increased 30 per cent. The other herds were smaller, but the percentages of increase were as follows: 44 per cent., 90 per cent., 103 per cent., 31 per cent., 33 per cent., and 34 per cent.

#### INDUSTRIAL EDUCATION FOR THE WHITES.

This is a fast age, declared Mr. Hull, in his evening address, an age when time is being clipped from train schedules, when great manufacturing establishments are throwing out vast equipment of machinery, and substituting expensive new machines because they will make shoes 3c. a pair cheaper. Farming is becoming more and more a matter of brains. Education is demanded, and that education must better meet the needs of rural conditions. As it is to-day, you may send your boy to public school and High School, without having so much as intimated to that boy that farming needs brains. We must equip our sons with an agricultural education that will enable them to go out and grapple successfully with the problems they meet. The United States has given the Indians and the negroes industrial education. The little white boys have just as good a right to an education that will make them efficient citizens as have the little brown boys of the West and the little black boys of the South.

What is there to apologize for in being farmers? The farmer is the first lieutenant of the Maker of this world. Out on the farm, men's hearts grow bigger, and their souls stronger, than anywhere else. The man who gets rich to-day in great industrial and mercantile pursuits wants to own a farm and grow pigs and calves. When a Vanderbilt speaks to you about the thing that lies nearest his heart, it is the Biltmore farms. Go down to have a talk with Hood, the great sarsaparilla man, and his thoughts turn to his Jerseys. It has been the history of the world that when men reach the top of these great business pursuits, their hearts turn back to the soil.

#### AVERAGE OF 4,006 POUNDS MILK PER COW IN SIX MONTHS.

In the report of the Chief Dairy Instructor and Sanitary Inspector, Frank Hens, considerable information was summarized, much of which has already been communicated to our readers. A new feature was a compilation of data on herd records giving the average production for six months of herds furnishing milk to cheese factories in Western Ontario in 1910. The records were obtained through the co-operation of the instructors with the makers, patrons and secretaries of 17 factories, representing seven instruction groups, three representative factories being chosen in each of six groups, and two factories in the other group. It was intended to include unit patrons from each factory, but in some cases a less number was chosen, as it was impossible to obtain accurate data from that many. The table presented showed that 8,137 cows in

herds in 17 representative factories yielded an average of 4,006 pounds of milk per cow, the average per cow of the best 17 herds being 5,669 pounds, and the average of the 17 poorest herds being 2,690 pounds per cow. Only 69 herds exceeded 5,000 pounds per cow, while only 5 herds averaged better than 6,000 pounds.

Assuming the cost of production to be nearly the same, what would the price of cheese need to be that the herds averaging 2,690 pounds would make a profit equal to those averaging 5,000 to



W. Waddell, Kerwood, Ont.

Proprietor of the Kerwood Creamery, and President Western Ontario Dairymen's Association.

6,000 pounds? In the latter case, cheese worth 10½ cents per pound; or what difference in the cost of production would be necessary to make these herds equal in profit? Also note that, while the average per herd is fairly good, how few herds reach 6,000 pounds. The 6,000-pound cow, with milk at 85 cents per 100 pounds, would amount to \$51, while the 3,000-pound cow would be only \$25.50.



Frank Hens.

Chief Dairy Instructor in Western Ontario, and Secretary Western Ontario Dairymen's Association.

The advantage to be gained by an increase in the price of cheese is fully appreciated, yet it is felt that it is not entirely the price of cheese that controls the profit, but the production of the individual cow. Too many of our dairymen are losing sight of this fact.

#### EVERY FACTORY A DEMONSTRATION STATION.

Recognizing the value of demonstration, Mr. Hens raised the question whether it would not be a good plan for each cheese factory to instal a model milk-cooling tank of wood or cement, fitted up simply for the introduction of cold water. Then, when a patron's milk arrives at the factory in overripe condition, if he draws his own milk, show him how he can fit up a similar tank, and explain the effect of taking in overripe or gassy milk, showing how the loss can be largely prevented by proper cooling. Show how simple it is to care for milk properly, and describe and illustrate precisely how to do it in every detail. If the patron does not haul his own milk, send him a note, asking him to call at the factory to see the equipment. Would it not pay, he asked, to go even further, build a cheap model milk-house at the factory, instal a tank, and have plans of the tank, milk-house and can-lifter, together with an estimate of the cost?

#### PASTEURIZATION OF WHEY AND WHEY TANKS.

One hundred factories pasteurized the whey; 17 fed the whey at the factories, leaving 83 factories not pasteurizing the whey. The average per cent. of fat in pasteurized whey was .2 per cent., the average acidity .38 per cent., and the average temperature 116 degrees. The average per cent. of fat in unpasteurized whey was .11 per cent., the average acidity 1.09 per cent., and the average temperature 86 degrees. These figures are nearly all the same as last year.

About the same proportion of factories as in 1909 did a first-class job in the pasteurization of whey. The factories which were behind in this connection showed about the same reasons for partial failure as mentioned last year. Too much whey left over in the tank, improper equipment, lack of sewage disposal, and in some cases plain carelessness. Continued satisfaction is expressed by the patrons with respect to pasteurization.

It will be noticed that the pasteurized whey contained almost twice as much fat as the unpasteurized whey, and on this ground alone the pasteurized whey should be worth 12 to 16 per cent. more as feed than the unpasteurized whey, according to recent experiments, which indicate a difference of 25 to 33 per cent. in favor of unskimmed as compared with skimmed whey.

#### BITTER AND FRUITY FLAVORS.

The season of 1910 seemed favorable for a prolific growth of yeasts. We are convinced that, had the growth of these organisms not been checked to some extent through the pasteurization of whey, a great many factories would have had as much trouble as in the years previous to 1907, when a large percentage of the factories were troubled with these flavors. Where pasteurization was properly practiced, the bitter flavor was kept under control, and in most cases gave very little trouble. When we remember that only a few years ago a large number of our cheese were injured through this flavor, and that the loss of fruity-flavored cheese is stated by buyers to be anywhere from ¼ to ½ cent per pound of cheese, this question becomes important. If, through pasteurization of whey, we can eliminate even a percentage of fruity and whey flavors, it means dollars saved, as well as improvement in quality. We have to continually fight this flavor through pasteurization of whey, weeding out rusty cans, immediately looking after the milk of those patrons which show this flavor, and see that the cans are properly washed and the milk well cooled. Not only has the reputation of our cheese to be considered, but also the loss from cuts in price at the individual factories. When the flavor developed at the factories where the whey was not pasteurized, it was very persistent and difficult to deal with, as it was hard to locate many of the offending patrons, since numbers of the cans were infected through the whey. The flavor was noticed at a few factories where the whey was apparently well heated, but only for a short time, and on an occasional curd. The patron whose milk showed the flavor was easily located by the curd test. After a visit to the farm the trouble usually ceased. The organisms were not so easily spread through the can. At two or three factories during the early part of the season, where the whey was heated for the first time, the flavor appeared. The reason, no doubt, was that, with a small quantity of whey in cool weather, the temperature went down too quickly. Had pasteurization been continued, the trouble would have probably disappeared.

#### EXPERIMENTAL CHEESE.

Through the Bacteriological Department, with the assistance of the Dairy School at the O. A. C. cheese were made samples of which are shown in the accompanying photographs. Cultures of yeasts have been isolated from the originals of which were taken from the Western Ontario factories from which the whey was drawn. In many of these cheese, the bitter and fruity flavor has developed, and this is shown by the control sample which is shown in the photograph. This points out



that the organisms that produce fruity flavors are present in the whey. If, through pasteurization, they can be checked to some extent, at least, and also disease germs destroyed, the system should be encouraged by all dairymen. The makers are requested to examine the experimental cheese. A bacteriological exhibit is also shown which graphically illustrates the effect in milk of different bacteria, and points out the necessity for cooling and cleanliness at all times in the production of milk.

**LOSSES FROM OVERRIPE MILK.**

For the past two seasons, the Chemistry Department of the Ontario Agricultural College has been co-operating with the Western Ontario instruction staff in an effort to determine the losses in cheesemaking from overripeness of the milk supply. The results were reported at the convention by Prof. R. Harcourt.

The work done in 1909 was carried out in co-operation with six cheese factories. Samples of the normal and overripe milk, and the cheese made from each, together with the weight of milk in each vat, and the weight of cheese made in each case, were taken, and sent to the O. A. C. Fat and protein were determined in both milk and cheese, and the difference between that recovered in the cheese and that found in the milk charged as loss. The average losses per 100 pounds of milk are given below:

	Protein.	Fat.	Moisture.	Cheese.
	Lbs.	Lbs.	Lbs.	Lbs.
Normal milk	.735	.338		9.17
Overripe milk	.778	.337		8.31
	.043			.86

The work done in 1910 was with small vats (700 pounds), where all the work was carried out as accurately as it could be done. Naturally, in dealing with a smaller amount of milk, it was possible to control conditions after dipping better than in a large factory:

	Protein.	Fat.	Moisture.	Cheese.
	Lbs.	Lbs.	Lbs.	Lbs.
Normal	.803	.529	3.11	9.04
Overripe	.832	.664	2.92	8.79
	.027	.035	.19	.25

**Loss of protein as influenced by acidity:**

.17 % acid in whey gave	.937%	soluble protein.
.175 " " " " "	.947 " " "	" " "
.23 " " " " "	1.072 " " "	" " "
.25 " " " " "	1.118 " " "	" " "
.27 " " " " "	1.126 " " "	" " "

A concise paper by Alex. McKay, Demonstrator in Cheesemaking at the Ontario Agricultural College, reviewed a number of lines of experimental work in cheesemaking conducted in the Dairy Department of the Ontario Agricultural College during the past season. Reserving this paper for publication as a separate article, we may merely note here, in passing, the results of one series, comparing overripe with normal milk. The normal milk made 2.48 pounds more cheese per thousand pounds of milk than did the overripe milk, notwithstanding that the latter happened to contain a trifle more of both fat and casein. The cheese from the overripe milk also scored lower in flavor, closeness, color and texture, the total being 91.73 points, as compared with 93.84 points for the cheese made from the normal milk.

**MR. PUTNAM'S ADDRESS.**

The general advance in all lines of dairying was commented upon by G. A. Putnam, Director of Dairy Instruction. The home market for cheese might be largely developed, he thought. One man he knew said his family used three-quarters of a pound of cheese a day. The retail prices check the consumption. A pound of cheese should be placed on the market when well ripened—that is, when a year or so old—for 15 or 16 cents a pound. Now, we can't get poor cheese for that price.

He expected the next few years would see a greater advance in dairy production. Freer use of some of our valuable forage crops would contribute to this end. He cited the case of one dairyman who had heard alfalfa preached for years, but hadn't sown any till a couple of years ago. Now he has a fine field of it growing on a rough hillside, which, thanks to alfalfa, is the most profitable part of his farm.

In a brief discussion provoked by Mr. Putnam's address, Prof. Harcourt stated his opinion that the impression that cheese was an indigestible substance, was due to the fact that so much green cheese was consumed.

**WANT WHEY BUTTER AND MILLED BUTTER BRANDED, AND PRESERVATIVES FORBIDDEN.**

After Mr. Putnam's address, Dairy Commissioner J. A. Ruddick brought to the attention of the convention the desirability of amending the Inspection and Sale Act in certain particulars. The draft bill submitted calls for the branding

of packages containing whey butter and milled butter, or any mixtures containing either, when sold, offered, exposed, or had in possession for sale. "Milled butter" is to be defined as any butter which consists of a mixture of creamery butter, or of two or more lots of dairy butter which have been manufactured in different dairies and mixed together. The sections governing milk supply to places of manufacture are also to be amended, so as to include milk supplied to skimming stations, milk-shipping stations, and casein factories. The addition of preservatives, coloring matter, or other chemical substance, to milk supplied to creameries, cheeseries, or other places of manufacture, as named, is also to be forbidden. A resolution endorsing these proposed amendments was carried.

**PROGRESS IN THE CREAMERIES.**

From the section of Mr. Hens' report dealing with creameries, we glean some encouraging facts. After noting an increase of 1,602,000 pounds in the make of butter (exclusive of some additional creameries added to the Western Ontario field last season), and remarking the improvement in quality, notwithstanding that most of the butter is made from collected cream, gathered only two or three times a week, and much of it hauled long distances, the report records the gratifying fact that the average per cent. of fat in the cream was 25.8, an increase of 5.9 per cent. over 1907. The patrons are beginning to realize the advantage of skimming a cream testing not less than 30 per cent. fat.

Only six creameries now use the oil-test churn, four fewer than in 1909.

Scales and Pipette.—Sixty-nine creameries use the pipette in testing cream; 23 creameries use the scales, 9 more than last year. Several of these creameries use the scales only when selling cream. Why? We are assured that there is now placed on the market a twelve-bottle cream scale which is free from the objections raised with respect to balancing of some of the scales formerly sold for weighing cream samples; therefore, any arguments against the use of scales cannot now be considered of as much importance as formerly, at least from the standpoint of scale accuracy.

Pasteurizing.—Thirteen creameries pasteurized the cream—more than last year. This is not gaining ground very rapidly, yet it is believed to be one of the ways in which the keeping quality of our butter may be improved. Richer cream is required at many of our creameries, and when secured, they will, no doubt, be in a better position to adopt pasteurization.

Moisture in Butter.—Four hundred and fifty-two tests were made for moisture. The average moisture was 14.71 per cent., or .05 per cent. more than last year. Forty-nine samples containing over 16 per cent. moisture were taken from 28 creameries, 8 in the Northern group, and 20 in the Southern. This is a very good showing, considering the amount of butter made. Care should be taken not to work too close to the moisture limit.

Salt.—One of the defects mentioned of our butter is uneven salting. It appears somewhat difficult to have different days' make (although the same per cent. of salt is used) retain to the taste about the same amount of salt in the finished butter, having a uniform loss in the working. Silver nitrate salt tests with potassium bichromate indicator were supplied the instructors for use the past year, and a large number of tests for salt were made; 5 per cent. was the average salt used, and 3.5 per cent. the average salt left in the butter. Variations, as shown by the salt test, were numerous, and we are not yet certain from the work done that this test is entirely reliable, as it is difficult to get the salt from the butter properly dissolved and incorporated in the water from which the sample for the test is taken. We expect to use this test again next year, and endeavor to have it checked up by other analysis, so that we hope to know more about its accuracy and usefulness. We would also like to determine what condition of the butter, such as temperature, moisture, etc., conduces to a more uniform per cent. of salt being left in the butter. The question is important, and no doubt deserves more attention than has been given it in the past.

Weighing and Measuring the Cream.—Twenty-two creameries still measure the cream at the farm, allowing, we presume, 4.1 pounds of cream to the inch. As the weight of a given volume of cream varies somewhat in proportion to the acidity and per cent. of fat, we would think it more accurate to weigh the cream. Beam scales are procurable which give good results.

Expenditure.—\$12,329 was spent in improvements last year, including some outlay with respect to water supply, drainage and sanitary conditions, which were badly needed at some of the creameries.

**EDUCATION AND CO-OPERATION.**

"The curse of city life is congestion, the curse of life in the country is isolation," declared Dr. Croelman, President of the Ontario Agricultural College, speaking at the last evening session. Two themes he emphasized: Education, and co-operation. In education of elders, demon-

stration, is the new idea. "Show me," says the practical man. For children, we need to use the school-garden and nature study, instead of teaching so many dry facts. The teaching of agriculture with a text-book was tried, and didn't go. It is futile to expect a girl in her teens to teach technical knowledge to children, some of whom know more about it than she herself. The new plan is to take the teacher and train her so that she in turn may impart to the child some of the information, suggestion and enthusiasm she has received, interesting the pupils in the common trees, insects, plants, crops and animals, thus drawing the boys out, awakening their interest, directing their activity, and training their minds.

But, after all this education, he added, it would be impossible, without co-operation, to break up the isolation of country life. Intensive agriculture, with co-operation, would not only help to solve the problem of distribution, but it would bring these four things: (1) Improvement of the wagon roads; (2) successful demand for rural mail delivery; (3) rural telephones; (4) improved transportation. He had been impressed by a recent remark that the greatest asset of the merchant doing business to-day was the ignorance of his customer. To-day, farmers are individually the strongest men in the community; as a class, they are the weakest.

At the concluding session, after several addresses trophies were presented by Hon. Nelson Monteith to the winning exhibitors, and the usual code of formal resolutions passed.

**OFFICERS.**

Directors.—Wm. Waddell, Kerwood, for London group; D. A. Dempsey, Stratford, for Stratford group; S. R. Wallace, Burgessville, for Ingersoll and Woodstock group; J. N. Paget, Canboro, for Brantford group; J. J. Parsons, Jarvis, for Simcoe group; W. S. Stocks, Britton, for Listowel group; J. B. Smith, Alton, for Eastern and Southern Creamery group; S. E. Facey, Harrietsville, for Ingersoll and Woodstock group; J. H. Scott, Exeter, for Western Creamery group; J. B. Muir, Ingersoll, for Stratford group.

Representatives to Western Fair.—I. W. Steinhoff and Frank Hens. Representatives to Toronto Exhibition—Robert Johnson and Frank Hens.

Auditors.—J. A. Nelles and J. C. Hegler.

President.—Wm. Waddell, Kerwood.

1st Vice-Pres.—D. A. Dempsey, Stratford.

2nd Vice-Pres.—S. R. Wallace, Burgessville.

3rd Vice-Pres.—W. S. Stocks, Britton.

Secretary-Treasurer.—Frank Hens, London.

**ESTIMATES DAIRY PRODUCTION \$18,582,439 GREATER THAN IN 1903.**

"The Outlook for Dairying in Canada" was the title of an excellent paper by J. A. Ruddick, Dairy & Cold-storage Commissioner, who set forth clearly that the dairy industry is not declining, but, on the contrary, increasing largely. Touching upon the export-cream trade, he pointed out that the first shipments of cream to the United States were made in August, 1909. Since then they have grown so rapidly that, if the shipments for the remaining months of the present fiscal year show the same rates of increase as was shown in October, the total export of cream for the twelve months ending March 31st will be 2,811,566 gallons, or the equivalent of 13,000,000 pounds of butter, or 28,115,000 pounds of cheese. The increase in cream shipments in 1910 over the previous season will be equal to 340,000 boxes, or 25,000,000 pounds of cheese. Had this quantity been added to our cheese or butter exports for the present fiscal year, the increased exports would have been that much larger. On this hypothesis, Mr. Ruddick submitted the following estimate of exports for the present fiscal year (ending March 31st), as compared with the two previous ones:

	1909.	1910.	1911.
			Estimated.
Cheese	\$20,384,666	\$21,607,692	\$21,000,000
Butter	1,521,436	1,010,272	800,000
Condensed Milk			400,000
Cream	90,520	541,372	3,000,000
Casein			40,000
	\$21,996,622	\$23,159,336	\$25,240,000

Since 1908 our surplus for export has been increasing, and, even compared with 1903, our year of largest dairy exports, the export trade shows a decrease of only about \$6,500,000. But this is not the whole story. An increase of about 2,000,000 in population, consuming an estimated average of \$10 worth of dairy products per head, plus increased consumption per capita of milk, cream, butter and ice-cream, owing to general prosperity, is believed by Mr. Ruddick to account for a total increase in home consumption of \$25,000,000 over 1902-03. Adding, then, our estimated increase in home consumption (\$25,000,000) to our estimated exports for 1910-11 (\$25,250,000), and setting against this the exports of \$31,667,561 in 1902-03, Mr. Ruddick arrives at

the conclusion that our production of dairy products in 1910-11 will be \$18,582,439 greater than in 1902-03, the year of bumper exports.

Turning to the market end of the discussion, Mr. Ruddick urged that there is nothing in sight which need offer the slightest discouragement to largely-increased production.

#### A MISSING PAPER.

A paper by Prof. H. H. Dean, entitled, "From the Cow to the Creamery, and After," was prepared for the Convention, but, owing to the illness of the author, had to be mailed to the Secretary, to be read by him. Unfortunately, it was sent to his office in London, where it arrived during his absence in Stratford, and was not received until the Convention was over. It will, however, be published in the report, and synopsized in "The Farmer's Advocate."

#### CARE OF CREAM ON THE FARM.

The paper by Geo. H. Barr, Chief of the Dairy Division, Ottawa, "Caring for Cream at the Farms," was concise and instructive. Experiments on the care of cream at the farms, carried on by the Dairy Division under the personal supervision of Mr. Barr and Mr. Bouchard, showed that cream cannot be kept sweet for even thirty-six hours when kept in the ordinary cellars without any additional cooling. When the cream was left uncovered in the cellars, it showed a distinct cellar flavor, but when the covers were put on the cans, there was no such flavor. When the cream was cooled to 55 degrees soon after skimming, it kept perfectly sweet for 36 hours, or for delivery to the creamery every other day.

The advantages of skimming a rich cream for sending to the creamery were thus enumerated:

1. The buttermaker has a better opportunity to control the quality of his butter.
2. There is less cream to haul.
3. There is less cream to take care of at the farm.

4. There is a greater quantity of skim milk at the farm for feeding purposes. If all the cream sent to our cream-gathering creameries tested 30 per cent. fat, it would mean thousands of dollars extra money in the pockets of the patrons from more and better stock, and the quality of the creamery butter would be very much improved, as some creamerymen would then pasteurize the cream who cannot do so at present on account of its low fat content and high acidity. A chart showed the loss of skim milk from skimming a thin cream from a herd of ten cows averaging 4,000 pounds of 3.5-per-cent. milk. From this it appeared that, taking a 30-per-cent. cream left 2,338 pounds skim milk on the farm than when a 20-per-cent. cream was skimmed and sent to the creamery. The conclusions were to the point, as usual:

In the production of fine cream, cleanliness is the great essential. It would mean a great improvement in the operating of our cream-gathering creameries if all the cream tested between 25 and 30 per cent. fat.

Cream producers must make some provision for cooling the cream, other than setting it in the cellars, if we are going to have sweet cream.

An insulated tank proved a simple, convenient and effective utensil for keeping cream in.

Cream can be kept sweet for 36 hours by the liberal use of well water at 50 degrees, in an insulated tank. It is impossible to keep cream sweet for delivery twice a week without using ice. Every cream patron should provide a supply of ice for cooling the cream.

#### ABOUT GLASSWARE.

The Dairy Division at Ottawa, said Mr. Barr, has been getting a great many letters about glassware. All requests for information about this matter should be addressed to J. A. Ruddick, Dairy and Cold-storage Commissioner, Ottawa. Glassware to be tested should be sent to the Standards Branch, Department of Inland Revenue, Ottawa.

#### FINE EXHIBITION OF BUTTER AND CHEESE.

A particularly attractive display of butter and cheese was on exhibition in Hembuch's Hall. The exceptionally uniform, excellent finish of the cheese induced Dairy Commissioner Ruddick to buy all the cheese but the Stiltons for exhibition purposes, making an offer of 12 cents, which was not raised by anyone else. Perhaps the most conspicuous feature of the cheese exhibit was the uniformity of scores, the best one being 96.64 points, won by B. F. Howes, of Atwood, who wins the cheese buyers' trophy. A new feature this year was a class for Stiltons made from ordinary cheddar curd, but weighing from ten to twelve pounds.

The butter was fair, prints and winter creameries having improved over 1910, though the October butter, in the opinion of the judges, was perhaps not quite so good as last year. At the sale of exhibits, the cheese sold, as above for 12 cents, except the Stiltons, which realized 13 cents. Winter creamery butter went for 24 cents, prints for 28 cents, and October butter solids for 22 cents.

Our greatest asset is the youth, the school children of the country.—Jas. Torrance, M.L.A.

If the machine is proud to handle manmade machines, still prouder should the farmer be to handle the manmade machine.—Valentine Stock, M.L.A.

#### AWARDS IN CHEESE.

September White—1, B. F. Howes, Atwood, total score, 96.66; 2, H. Donnelly, Stratfordville, 96.33; 3, R. A. Thompson, Atwood, 96.16; 4, C. Klockman, Carthage, and C. A. Barber, Woodstock (tie), 95.82.

September Colored—1, J. E. Stedelbauer, Listowel, 95.99; 2, Jno. Cuthbertson, Sebringville, 95.65; 3, C. J. Donnelly, Scotsville (preference for flavor), 95.49; 4, C. A. Barber, Woodstock, 95.49.

October White—1, J. K. Brown, Ethel, 95.98; 2, C. J. Donnelly, Scottsville (preference for flavor), 95.66; 3, R. A. Thompson, Atwood, 95.66; 4, A. E. Skapland, White Oak, 95.49.

October Colored—1, R. A. Treleaven, Rothsay, 95.82; 2, Peter Callan, Woodstock (preference for flavor), 95.66; 3, Geo. Cameron, York, 95.66; 4, R. A. Thompson, Atwood, 95.49.

Ten-pound Stilton—1, R. A. Thompson, Atwood, 95.66; 2, Peter Callan, Woodstock, 95.49.

#### BUTTER.

Fifty-six-pound Box Winter Creamery.—1, Jno. Cuthbertson, Sebringville, 95.66; 2, R. A. Thompson, Atwood, 95.49; 3, T. J. Humphrey, Avonbank, 95.33; 4, Hugh Patrick, St. Thomas, 95.32.

Twenty One-pound Prints, Creamery.—1, J. A. Waddell, Kerwood (preference for flavor), 96.16; 2, R. A. Thompson, Atwood, 96.16; 3, E. M. Johnston, Innerkip, 95.32.

Fifty-six-pound Box October Creamery Butter.—1, Geo. Medd, Winchelsea, 95.82; 2, W. M. Brubaker, Dresden, 95.40; 3, Hugh Patrick, St. Thomas (preference for flavor) 95.32; 4, J. A. Waddell, Kerwood, 95.32.



D. Johnson, Forest, Ont.

An extensive fruit-grower, and President of the Ontario Fruit-growers' Association.

#### SPECIAL PRIZES.

Heller & Merz—J. A. Waddell and R. A. Thompson (tie).

Ballantyne Burrell—B. F. Howes, R. A. Treleaven.

Slawson Burrell—John Cuthbertson, C. J. Donnelly.

J. B. Ford Co.—C. A. Barber, Hugh Patrick, Canada Salt Co.—J. A. Waddell and R. A. Thompson (tie).

Western Salt Co.—B. F. Howes, R. A. Treleaven, W. G. Mohd, J. A. Waddell, and R. A. Thompson.

C. C. James—R. A. Thompson, Peter Callan, Marshall Dairy Laboratory—E. Stedelbauer, Imperial Bank of Canada—R. A. Thompson, Cheese buyers' Trophy—B. F. Howes.

The Niagara Peninsula Fruit-growers' Association have unanimously adopted a resolution approving the reduction of the Canadian duty on United States grapes from two to one cent per pound. Great satisfaction was expressed at the meeting of the Railway Commission regarding the progress committee to revise their rates, and the members have consented to meet with the fruit-growers and shippers before the revision of rates is submitted to the Commission for their consideration.

#### Annual Meeting of Breed Societies at Toronto.

Wednesday, Feb. 1st, at 8 p. m.—Ponies.  
Thursday, Feb. 2nd, at 10.30 a. m.—Standard Breds.

Thursday, Feb. 2nd, at 8 p. m.—Hackneys.  
Friday, Feb. 3rd, at 10 a. m.—Shire Horse Society.

Friday, Feb. 3rd, 10.30 a. m.—Thoroughbred.  
Friday, Feb. 3rd, at 2 p. m.—Clydesdales.

Friday, Feb. 3rd, at 8 p. m.—Ontario Horse Breeders' Association.

Monday, Feb. 6th, at 8 p. m.—Shorthorn Board.

Tuesday, Feb. 7th, at 11 a. m.—Shorthorn Annual Meeting.

Thursday, Feb. 9th—Holstein Annual Meeting.  
Friday, Feb. 3rd, 8 p. m.—Ontario Horse Breeders' Association, Walker House, Toronto.

Tuesday, Feb. 7th, 2 p. m.—Directors' Meeting of the Dominion Swine-breeders' Association, Walker House, Toronto.

Tuesday, Feb. 7th, at 7.30 p. m.—Dominion Cattle-breeders' Association, Walker House.

Wednesday, Feb. 8th, 9.30 a. m.—Ontario Large Yorkshire Swine Breeders' Association, Walker House.

Wednesday, Feb. 8th, 11 a. m.—Ontario Berkshire Breeders' Society, Walker House.

Wednesday, Feb. 8th, 2 p. m.—Dominion Swine-breeders' Association, Temple Building, Toronto.

Thursday, Feb. 9th, 7.30 p. m.—Directors' Meeting of Dominion Sheep-breeders' Association, Walker House.

Friday, Feb. 10th, 9.30 a. m.—Dominion Sheep-breeders' Association, Temple Building, Toronto.

Friday, Feb. 10th, 1.30 p. m.—Annual Meeting of Ontario Sheep-breeders' Association, Temple Building.

#### Manufacturers Present Their Case

A deputation of fifty manufacturers, representing the Canadian Manufacturers' Association and various industries throughout the country, waited upon the Dominion Government on January 13th. The spokesman was T. A. Russell, of Toronto, Chairman of the Tariff Committee of the Manufacturers' Association, whose recent address before the Canadian Club, of Toronto, attracted such widespread attention, the main points in the memorial being supported by a series of eleven appendices, touching on the growing needs of American exporters for access to the Canadian market, the present inequality of tariffs along the border, the disadvantages under which Canadian exporters now labor in respect of American customs regulations, the danger of stopping the steady investment of British, European and American capital in Canadian industrial enterprises, the effect of reciprocity on Canadian transportation interests, the importance of fostering industrial growth in Canada as a means of developing a profitable home market for the Canadian farmer, and the alleged dangers of reciprocity even to the farming industries of Canada.

The Premier, in reply, was cautious, but did not see that it was impossible to reach some trade agreement which would not in any way interfere with the manufacturing community of Canada.

#### Ontario Fruit-growers.

At the directors' meeting of the Ontario Fruit-growers' Association, in Toronto, last week, officers for the year were chosen as follows: President, D. Johnson, Forest; Vice-President, J. W. Smith, Winona; Secretary, P. W. Hodgetts, Toronto. Action re a national apple show in Ontario was deferred, and a committee consisting of W. H. Bunting and R. Thompson, of St. Catharines, for the tender fruits, and James E. Johnston, Simcoe; D. Johnston, Forest, and Harold Jones, Maitland, were appointed to make known the views of the fruit-growers to the Government on the tariff.

#### Short Courses at Truro.

The January Short Courses at the Nova Scotia Agricultural College, just completed, have been the most successful in the history of the institution. A total enrollment of 259, with a large additional intermittent attendance, crowded the classrooms to their utmost. Eighty-seven students came from Prince Edward Island, 16 from New Brunswick, a few from Great Britain, and the balance from Nova Scotia.

W. A. McLean, Provincial Good Roads and Highway Commissioner for Ontario, is preparing plans for a road which can be secured under various conditions of construction to be carried out by the Government between Bridgeville and the Lake. The Niagara Falls and Lake Ontario Railway is preparing a plan for the demonstration of the use of the spring.

# The Canadian Bank of Commerce

## OFFERS TO FARMERS AND RANCHERS

every facility for the transaction of their banking business, including the discount and collection of sales notes. Blank sales notes are supplied free on application.

### BANKING BY MAIL

Accounts may be opened and conducted by mail, and will receive the same careful attention as is given to every other department of the bank's business.

### A SAVINGS BANK DEPARTMENT

is open at every branch in Canada (except in the Yukon Territory) and interest is allowed on deposits of \$1 and upwards at current rates. Accounts may be opened in the names of two or more persons and operated by any one of the number or by the survivor. This method avoids much trouble in deciding the ownership of money after death.

Capital, \$10,000,000

Reserve, \$7,000,000

## MARKETS.

### Toronto. LIVE STOCK.

At West Toronto, on Monday, January 16th, receipts numbered 82 cars, comprising 1,579 cattle, 91 hogs, 1,229 sheep and lambs, 13 calves. The quality was fair to good, trade brisk; market strong, prices 10c to 15c. higher, quality considered. Exporters, \$5.80 to \$6.25, and no higher than butchers; prime butchers', \$6 to \$6.25; loads of good, \$5.60 to \$5.85; medium, \$5.35 to \$5.60; common, \$4.90 to \$5.25; milkers, \$4.5 to \$6.5; calves, \$3 to \$8.50. Sheep—Ewes, \$4.50 to \$4.75; lambs, \$6 to \$6.25. Hogs, \$7.60 for selects, fed and watered at market, and \$7.35 to drovers for hogs f. o. b. cars at country points.

### REVIEW OF LAST WEEK'S MARKET.

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

	City.	Union.	Total.
Cars	280	186	466
Cattle	3,414	2,707	6,121
Hogs	8,151	2,741	10,892
Sheep	1,773	2,178	3,951
Calves	155	15	171
Horses	—	41	41

The total receipts of live stock at the two yards for the corresponding week of 1910 were:

	City.	Union.	Total.
Cars	216	113	329
Cattle	3,249	1,717	4,966
Hogs	4,782	1,411	6,226
Sheep	1,425	667	2,092
Calves	174	43	217
Horses	16	181	197

The above figures show an increase in the combined receipts of live stock at the two markets of 137 carloads, 1,155 cattle, 4,666 hogs, 1,859 sheep and lambs, but a decrease of 46 calves and 153 horses, when compared with the corresponding week of 1910.

Receipts of live stock were moderately large, considering that it was only the second week in the New Year. The quality of cattle was medium to good. Trade was good all week, in every de-

partment of live stock, with prices very firm, and in some classes much higher.

Exporters.—Export steers sold at \$5.90 to \$6.25; export heifers, 1,040 lbs. each, sold at \$6 to \$6.10; export bulls, at \$5 to \$5.50.

Butchers.—Butchers' cattle were firm all week, at following prices: Prime picked lots, \$6 to \$6.25; loads of good, \$5.70 to \$5.90; medium, \$5.40 to \$5.65; common, \$4.75 to \$5.25; cows, \$3 to \$5.25 per cwt.

Milkers and Springers.—Receipts of milch cows were fairly large. Prices ranged from \$40 to \$70 for the bulk, and a few choice quality sold at \$80, \$85, and \$90 for one extra fine cow.

Veal Calves.—Prices remain steady to firm, at \$3 to \$8.50 per cwt.

Sheep and Lambs.—Prices for sheep and lambs were higher, as follows: Sheep—Ewes sold at \$4.25 to \$4.60; rams, \$3 to \$3.50 per cwt. Lambs, \$6.15 to \$6.60 per cwt.

Hogs.—Receipts light, with prices higher at the close of the week. Selects, fed and watered at the market, \$7.65; and \$7.35, f. o. b. cars.

Horses.—The horse trade continues very quiet, although a little better than it has been for some time. The principal demand is for medium-quality horses, at medium prices, and the demand is greater than the supply. Prices ranged as follows: Drafters, \$200 to \$250; general-purpose, \$175 to \$225; expressers, \$160 to \$225; drivers, \$100 to \$225; serviceably sound, \$40 to \$100.

### BREADSTUFFS.

Wheat. No. 2 white, red, or mixed, 85c. to 86c., outside. Manitoba wheat—No. 1 northern, \$1.03; No. 2 northern, \$1.00 1/2c.; No. 3 northern, 98c. Rye—No. 2, 61c. to 62c., outside. Peas—No. 2, 78c. to 80c., outside. Buckwheat—17c. to 18c., outside. Oats—Canadian Western, No. 2, 38 1/2c.; No. 3, 37c.; lake ports, Ontario, No. 2, 32c.; No. 3, 31c.; outside. Barley.—For malting, 57c. to 58c.; outside, for feed, 50c. Corn—American new, No. 3 yellow, 52 1/2c. to 53c. at Toronto. One ton, 38 1/2c. at seaboard. Manitoba flour, Toronto prices are: First patents, 85 1/2c.; second patents, \$1.90; strong bakers', \$1.75.

### HAY AND MILLFEED.

Hay.—Baled, car lots, at Toronto, No. 1, \$12 to \$13; No. 2, \$9 to \$10.50. Straw.—Baled, car lots, at Toronto, \$7 to \$7.50.

Bran.—Manitoba bran, \$19; shorts, \$21; Ontario bran, \$20 in bags. Shorts, \$22, track, Toronto.

### COUNTRY PRODUCE.

Butter.—Markets a shade easier for dairies, but creameries unchanged. Creamery pound rolls, 26c. to 28c.; creamery solids, 25c.; separator dairy, 24c. to 25c.; store lots, 21c. to 22c.

Eggs.—New laid, 10c.; cold storage, 27c. to 28c.

Cheese.—Large, 12c.; twins, 12 1/2c.

Honey.—Extracted, 10c. to 11c.; combs, 14c. to 16c.; hens, 11c.

Beans.—Market firmer; hand-picked, \$1.90 to \$2.

Poultry.—Turkeys, 18c. to 20c.; geese, 14c. to 15c.; ducks, 16c. to 17c.; chickens, 14c. to 16c.; hens, 11c.

Potatoes.—Car lots, on track, Toronto, 70c. to 75c. per bag.

### HIDES AND SKINS.

E. T. Carter & Co., 85 East Front street, Toronto, were paying as follows: No. 1 inspected steers and cows, 9 1/2c.; No. 2 inspected steers and cows, 8 1/2c.; No. 3 inspected steers, cows and bulls, 7 1/2c.; country hides, cured, 8c. to 8 1/2c.; country hides, green, 7 1/2c. to 8c.; calf skins, 11c. to 13c.; sheep skins, 65c. to \$1.00; horse hides, No. 1, \$2.75 to \$3; horse hair, per lb., 29c.; tallow, No. 1, per lb., 5 1/2c. to 6 1/2c.

### TORONTO SEED MARKET.

The market for seeds was unchanged, with little business being transacted. Alsike No. 1, per bushel, \$7 to \$7.50; alsike No. 2, per bushel, \$6.50 to \$7; alsike No. 3, per bushel, \$5.50 to \$6; red clover No. 1, per bushel, \$6.75 to \$7; red clover No. 2, per bushel, \$6 to \$6.25; red clover No. 3, per bushel, \$5 to \$5.50.

### FRUITS AND VEGETABLES.

Prices unchanged, as follows: Box apples—No. 1 Spies, \$2.50, No. 2 Spies, \$2; No. 1 Greenings, \$2; No. 2 Greenings, \$1.75; No. 1 Baldwins, \$2; No. 2 Baldwins, \$1.75; Spies per barrel, \$4.50 to \$6; Greenings, \$4 to \$5; Baldwins, \$4

to \$5; onions, per bag, \$1 to \$1.25; carrots, per bushel, 35c. to 40c.; cabbage, per hundred, \$3.50.

### Montreal.

Live Stock.—The market for cattle showed very little change locally, prices for choicest stock ranging from 6c. to 6 1/2c. per lb., the latter not being very general. Fine stock sold at 5 1/2c., and good at 5 1/4c. to 5 1/2c., medium at 4 1/2c. to 5c., and common as low as 3 1/2c. per lb. Sheep ranged from 4 1/2c. to 4 1/4c. per lb., and lambs from 6 1/2c. to 6 1/4c. per lb., while calves sold all the way from 4c. to 7c. per lb. Hogs, 7 1/2c. to 8c. per lb. for selects, weighed off cars. They were a strong feature of the market.

Horses.—The Northwest has been enquiring for horses, and quite a few animals have been shipped out there. The quality was for the most part inferior. Horses that can be used for farming purposes, ranging in price from \$50 to \$125, and occasionally \$150, are the kind wanted. A few horses have been taken at \$200 to \$250, but not many. There has been a little enquiry from New Brunswick, apparently for lumbering purposes. Prices range about the same as before, though dealers say that best horses are very scarce, and that they are as likely to advance next spring as not. Heavy draft, 1,500 to 1,700 lbs., \$300 to \$350 each; light draft, 1,400 to 1,500 lbs., \$225 to \$300 each; light horses, 1,000 to 1,100 lbs., \$100 to \$200 each, and fine saddle and carriage horses, \$350 to \$500 each.

Dressed Hogs.—Fresh-killed, abattoir-dressed hogs were quoted at 10 1/2c. to 10 3/4c. per lb.; country-dressed are selling at 9 1/2c. to 10 1/2c. per lb.

Poultry.—Turkeys, 20c. to 21c. per lb., for best, geese 12c. and fowl 10c., while ducks range from 15c. to about 16c. per lb. Chickens sell at 12c. per lb.

Potatoes.—Eastern shippers were quoting 82c. per 90 lbs., carloads, track, for Green Mountains. Stock was being sold here at 85c. to 90c., in smaller quantities.

Eggs.—Fresh-gathered stock—if there was any sold at 50c. to 60c. per doz. Held

*Porcupine Gold District*

## THE Traders Bank of Canada

HAS BRANCHES AT  
**HAILEYBURY**  
 CHAS. H. DAY, Manager  
**KELSO MINES**  
 J. D. TIPTON, Manager  
**PORCUPINE**  
 G. G. BULLARD, Manager

These Branches are under the management of men experienced in Northern Ontario conditions. Their advice and services are at your disposal.

Telegraphic Transfers may be made  
 From New York, through the National Park Bank,  
 From Boston, through the First National Bank,  
 From Buffalo, through the Marine National Bank,  
 From Chicago, through the First National Bank,  
 From any Branch of the Traders Bank.  
 Escrows carefully guarded. 649

**STUART STRATHY,**  
 General Manager **TORONTO**

eggs steady, at 32c. per doz. for selects and 25c. to 27c. for No. 1.

**Apples.**—Market steady and firm. Auction-room prices ranged from \$3 to \$3.25 per bbl. for No. 3 stock, \$4 to \$4.25 for No. 2 stock, and \$5 to \$5.15 for No. 1. In the wholesale firms, the price of select apples ranged from \$7 to \$8 per bbl.

**Butter.**—There was a very dull demand for butter, but the market held about steady, at previous prices. Dealers quoted fall dairies at 21c. per lb.; while creameries sold at 23½c. to 25c., wholesale, some quoting 25½c.

**Cheese.**—Market showed some firmness. For finest cheese, as high as 12½c. was quoted, although 12c. was the general range. From this, prices ranged down to 11c., according to quality.

**Grain.**—Oats were a fraction stronger, No. 2 Canadian oats selling at 40c. to 40½c. per bushel, No. 1 extra feed being 39c. to 39½c., No. 3 Canadian Western, 38½c. to 39c.; No. 2 local white, 38c., No. 3, 37c., and No. 4, 36c. Manitoba No. 4 barley sold at 49c. to 50c., and No. 3 American yellow corn at 57½c. to 58c.

**Flour.**—\$5.60 per barrel, in bags, for Manitoba first patents, \$5.10 for seconds, and \$4.90 for strong bakers'. Ontarios, \$4.75 to \$5 for patents, and \$4.35 to \$4.50 for straight rollers.

**Millfeed.**—Manitoba bran, \$18 to \$20 per ton, in bags, shorts, \$21 to \$22, Ontario bran, \$19 to \$20, middlings, \$22 to \$22.50, pure grain mouille, \$31 to \$32, and mixed, \$25 to \$28. Cotton seed meal quoted at \$37 to \$38 per ton, nominally.

**Hay.**—No. 1 was quoted at \$12, and also at \$11 to \$11.50, No. 2 extra, \$10 to \$10.50, No. 2, \$9 to \$9.50, clover mixed, \$7.50 to \$8, and clover, \$6.50 to \$7 per ton, carloads, track.

**Seed.**—Trade light, but prices steady; dealers quote shippers, country points, \$6.25 to \$7.50 for red clover, \$6.50 to \$8.50 for alsike, per bushel, and \$6.50 to \$8 per 100 lbs. for timothy.

**Hides.**—Market steady, dealers paying 8c., 9c. and 10c. per lb. for beef hides, 10c. and 12c. for calf skins, 65c. to 70c. each for sheep skins, \$1.75 to \$2.50 for horse hides, 1½c. to 4c. per lb. for rough tallow, and 6½c. to 7c. for rendered.

### Chicago.

**Beaves,** \$4.85 to \$7.20; Texas steers, \$4.25 to \$5.50; Western steers, \$4.65 to \$6.10; stockers and feeders, \$3.85 to \$5.90; cows and heifers, \$2.65 to \$6.50.

**Hogs.**—Light, \$7.70 to \$7.95; mixed, \$7.70 to \$7.95; heavy, \$7.65 to \$7.95; rough, \$7.65 to \$7.75; good to choice hogs, \$7.75 to \$7.95; pigs, \$7.40 to \$8.10; bulk of sales, \$7.75 to \$7.90.

**Sheep and Lambs.**—Native, \$2.50 to \$4.50; Western, \$2.95 to \$4.45; yearlings, \$4.60 to \$5.75; lambs, native, \$4.75 to \$6.55; Western, \$5 to \$6.45.

### Buffalo.

**Cattle.**—Prime steers, \$6.50 to \$6.75; butcher grades, \$3 to \$6.  
**Calves.**—Cull to choice, \$6 to \$11.50.  
**Sheep and Lambs.**—Choice lambs, \$6.25 to \$6.40; cull to fair, \$5 to \$5.75; yearlings, \$5 to \$5.50; sheep, \$3 to \$4.50.  
**Hogs.**—Heavies, \$8.25; Yorkers, \$8.35; stags, \$6 to \$6.75; pigs, \$8.40 to \$8.60; mixed, \$8.05 to \$8.10; heavy, \$8 to \$8.05; roughs, \$7 to \$7.25.

### British Cattle Markets.

**Liverpool.**—States steers, 12½c. to 13½c. per lb., and Canadians 12½c. to 13c.

### GOSSIP.

#### THE GREAT CANADIAN COMBINATION SALE.

The catalogue which should be in the hands of every Shorthorn breeder that needs to increase or improve his herd, is that of the pedigrees of cattle to be sold in above sale on the 8th and 9th of February next, at Union Stock-yards, Toronto.

It is illustrated by portraits of 23 of the animals of both sexes, the pedigrees show who has been breeding them since the beginning, the foot notes give interesting bits of the history of the animals themselves, and of their immediate ancestors.

The men making the combination are known throughout the Shorthorn world as being amongst the foremost, perhaps they could not be duplicated as a group of breeders in the whole continent. They have spared neither time nor money nor their best efforts in making their herds what they are. They are known as dealing liberally with their customers, and every animal will be as represented.

The animals contributed to their sales in the past have surpassed the expectations of those attending the sales, and they have made good wherever they have gone. We are assured that this sale contains better individuals, and, on the whole, is away beyond the offering on any former occasion.

There is no question but this sale is the most important event to take place in the year in connection with Shorthorn affairs.

Beef cattle are worth more in Canada than they have ever been worth before, there is a greater difference between the best and the low grades, farming in every line is making greater demands on the skill and judgment of those engaged in it, every implement used has to be of the best, the seed sown must be pure and of the most approved kind, planted in kindly, well-prepared soil. In order to get the full reward for all this, it is necessary that the live stock kept to convert this grain into meat be of the best possible form of breeding, there is no room for anything inferior; why should a man be satisfied with second-best, anyway? A poor man cannot afford to keep a poor animal. No man is rich enough that he can afford to keep a herd of them. For the man with a high-class herd, there are bulls and heifers too, in this sale that will make it better, for the man with a fair herd, there are animals that will go a long way toward making it one of the best, for a man with a mediocre herd, there are bulls that, if used, will double its value in a short time, and for the man with a show herd, there are animals that will make it invincible. All the prices will not be away off better bargains are often found in a sale of this kind than in an ordinary sale.

Each year the class of men that meet on the occasion of this sale are more and more of the kind that make history in any vocation, men that sway the destinies of affairs pertaining to live stock. It is in your own interest to be there.

#### ALL CLAIMS.

Jan. 24th, J. D. Day, Haileybury, Ont. to Toronto.

Feb. 1st, William Linton, Aurora, Ont. to Toronto.

Feb. 2nd, J. B. S. Jones, White Oak, Ont. to Toronto.

Feb. 8th and 9th, Canadian Combination Sale, at Toronto, Robert Miller, manager.

At an auction sale on January 5th, of Percheron stallions and mares, by J. A. Stransky, at Pukwana, South Dakota, 40 head were reported sold for an average of \$501.40, the highest price for a stallion being \$1,010, and the highest for a mare, \$825.

#### THE LINTON SHORTHORN SALE.

The dispersion sale to take place on Wednesday, February 1st, of the old-established and well-known Shorthorn herd of William Linton, at the farm at Aurora, G. T. R., and on the Metropolitan Electric road from Toronto, should attract the attention of breeders and farmers from near and far. The strains represented in this herd have been bred by the Linton family for eighty years, and have produced many first-prize and championship winners at the Royal and other leading shows, and supplied herd-headers for many of the most noted herds in Great Britain. These cattle will be offered in only ordinary breeding condition, with no special fitting for sale, and buyers will doubtless secure good bargains.

#### ABERDEEN-ANGUS AT AUCTION.

As indicated in the advertisement in this issue, J. W. Burt, Coningsby, Wellington Co., Ont., near Erin Station, C. P. R., on branch from Cataract Junction to Elora, will on Tuesday, January 24th, sell at auction, 40 head of Aberdeen-Angus cattle, consisting of 30 females and 10 bulls, including the well-known stock bull, Klondyke. Also will be sold the imported Clydesdale stallion, Star of Roses, and two pairs of matched geldings. Erin is easily accessible by G. T. R. from Guelph, and Palmerston from West. This great beef breed has won more grand champion prizes at leading shows in Britain and America in late years than any other, and the sale should afford a good opportunity to secure foundation stock at the buyer's own price.

In the offering at the dispersion sale of the Shorthorn herd of Frank R. Shore, White Oak, Ont., near London, to take place February 2nd, as advertised in this issue, intending purchasers will find what farmers at this day are looking for—cows which will give a liberal flow of milk, and breed the early-maturing young stock which the feeder and the butcher now require. Of the families offered there will be Duchesses of Gloster and Nonpareils, representing the old Cruickshank herd, and the near-related Kinellar Sorts, Minas and Buchan Lassies. Mostly imported bulls of the most popular lines of breeding have been used, care always having been exercised, selecting from good milking dams, with the result that the cows and heifers in the herd give thorough satisfaction in this line. The younger heifers have been developed more for milk, a number of them having been hand-milked purposely to strengthen this trait. A number of promising young bulls will also be sold. No large prices are expected, and farmers will find those which will answer the purpose for which farm cattle are kept. The catalogue will explain the breeding.

### TRADE TOPIC.

#### FARM LABORERS AND DOMESTICS.

Commissioner Coombs and Colonel Lamb, Director of the Salvation Army's Emigration Work, have just returned from an extended tour, making arrangements for the placing of the immigrants that will come to Canada under the auspices of the Salvation Army in the spring. These will principally consist of laborers for farms and domestics. During the past year the Army has arranged the immigration of about ten thousand persons to this country, and arrangements are being perfected for the bringing of a larger number during the next season. A number of Canadian officers will shortly be visiting the old country for the purpose of selecting, advising, and conducting parties of farmers and others in Ontario who are desirous of labor for next year, and are advised to get in touch at once with the Salvation Army, as they will be called upon to give them assistance. With the exception of the Ontario farm, to which the largest number of immigrants are sent, the other immigrants are sent to various parts of the Dominion.

### Incorporated 1855

## Growth and Service

The constant growth of this Bank is a significant indication of the excellent banking service given to its many customers.

## Savings Bank and Business Accounts Invited

# Bank of Toronto

Assets, \$50,000,000

### GOSSIP.

#### HOLSTEINS ACCEPTED IN THE RECORD OF PERFORMANCE.

Maud Bessie De Kol (4384), mature class; 15,240.75 lbs. milk, 433.7468 lbs. fat, average per cent. of fat 2.84, number of days in milk 365. Owned by S. M. Peacock.

Bessie Jane De Kol (7365), three-year-old class; 11,977.95 lbs. milk, 395.1956 lbs. fat, average per cent. of fat 3.30, number of days in milk 365. Owned by S. M. Peacock.

Daisy Jane (6057), four-year-old class, 12,828.0 lbs. milk, 455.2334 lbs. fat, average per cent. of fat 3.55, number of days in milk 295. Owned by Thomas Hartley.

Winnie Westwood (3968), mature class, 11,210.1 lbs. milk, 364.0947 lbs. fat, average per cent. of fat 3.25, number of days in milk 291. Owned by Thos. Hartley.

Fairy Winsumer (6854), three-year-old class; 11,496.65 lbs. milk, 377.659 lbs. fat, average per cent. of fat 3.286, number of days in milk 365. Owned by Thos. Hartley.

Gladiolus (4037), mature class; 14,113.3125 lbs. milk, 469.784625 lbs. fat, average per cent. of fat 3.32, number of days in milk 365. Owned by John McKenzie.

Prokula De Kol (6635), four-year-old class; 12,550.8 lbs. milk, 413.3689 lbs. fat, average per cent. of fat 3.30, number of days in milk 303. Owned by T. G. Wood.

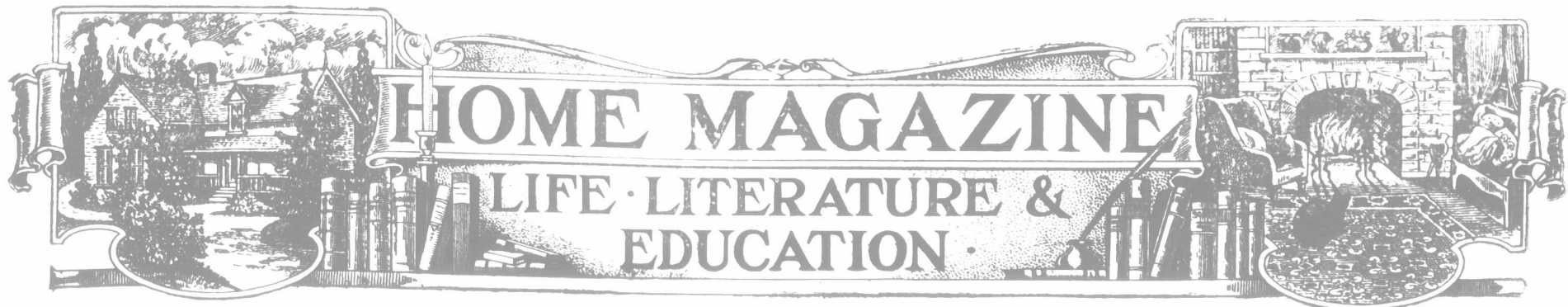
Mayfield Hilda (3313), mature class, 13,096.65 lbs. milk, 451.1915 lbs. fat, average per cent. of fat 3.44, number of days in milk 365. Owned by W. J. Cowie. G. W. CLEMONS, Secretary.

### QUESTIONS AND ANSWERS. Miscellaneous.

#### THUMPS IN PIGS.

Have some young pigs about 6 weeks old, not weaned yet, started dying off about 2 weeks ago. Seemed to be doing well till then. They get dumpy a short time before they die; seem to be short of wind, and lie down and pant sometimes. Sow has had lots of mangels and earth; chop, partly oats, barley, and a few peas. Have other young pigs in the same building, fed the same, and they seem to be doing all right. Do you think black teeth would kill pigs this age? OLD SUBSCRIBER.

Ans. This is thumps, due to too good feeding of the sow and lack of exercise of the pigs. Little can be done for them in the way of treatment. Prevention is the proper thing, and consists in giving laxative food, dry quarters, and compelling the pig to move around in the passage of the pen for exercise. A mixture of charcoal, or wood ashes, and soil kept in a low box where the pigs can take it at will, is often helpful. Earth from the root-house thrown on the floor of the pen for the pigs to root in is also helpful. The majority of veterinarians consider black teeth as a parasitic disease affecting pigs.



**Side Views from an Irish Jaunting Car and Mono Railway.**

The friend from whose interesting account of the hop-gardens of Kent I so freely quoted in my letter of 24th November last, is now spending her winter in Ireland, and, in response to my special request, has again sent me some jottings of her new experiences.

She calls her notes, "A mere stringing of words together," and as such she kindly places them at my disposal, and with them a renewal of her very tempting invitation to be the guest of herself and sisters in their temporary home at Greystones, on the sea coast of County Wicklow.

Of the first sight of Ireland, she says: "The approach, on a bright morning, from Holyhead, via mail steamer, is glorious. As you get near it, you see first Ireland's Eye, a small isle near the mouth of the Liffey; then Dublin Bay, and the Wicklow Mountains in the distance, with their pretty little sea resorts dotted about at their feet. Dancing in the sunlight sparkles the sea, placid and calm enough for the moment, but capable of a great commotion when lashed into fury by defiant winds; but, under both aspects, whether angry or smiling, our sea is beautiful.

"Kingstown is the 'mail' harbor, where trains await the travellers who are bound for Dublin and the south; so from Kingstown it was that we started for the quiet little spot in Wicklow which we now call home. Here we have grand views of land and sea. In our background are our mountains, the two largest of which are called 'Sugar-loaf' and 'Little Sugar-loaf.' Around them play many lights and shadows, and, according to their season, is the color of their raiment, with which, under the several names of bracken, moss, and heather, their grim sides are clothed. I send you a picture of Greystones, with 'Little Sugar-loaf' in the distance, and another of the 'Devil's Glen,' and another of 'Glendalough,' but pictures give only a very faint idea of the loveliness of our surroundings.

**OF SOME "PET DAYS" IN IRELAND.**

"Or, to be more specific, of the country around the south of Dublin and the south-west of Kerry. 'Pet,' you must know, is an Irishism for 'good' or 'fine,' so my notes, telling of our trips, are rightfully headed 'Pet Days in Ireland.' There is no doubt about the fact that one of the greatest charms of this land of 'Erin' is its gloriously clear air—so soft, so bright, it makes distance seem of no account. Alas! that its very clearness but too often means rain! And it can rain—a soft, steady downpour, too. One day I remarked to a friend, 'How it rained!' The answer was, 'Only a drying shower!' So I said no more on the subject of rain in Ireland.

"The very 'bog' lands from which are cut the 'peats' which look so black, contribute no mean share towards the natural beauties of the Emerald Isle, for they form a lovely background to the bits of color which sprinkle every here and there the heather bracken through which we drive.

"Our trip to Killarney was a real 'Red Letter Day' all through. We had a car and splendid horse. In deed, the Irish horses are generally

good, and there is no better way to see any country than in an outside Irish car, when once you have learnt how to adjust your body to its movements. Our drive was all along the lakes, where we saw the red deer come down to water. Our first stop was at Muckross Abbey, and then round Eagle's Cliff, and back to Killarney, where, it being market day, we saw no end of donkeys and carts all along the street, patiently waiting for their owners, who were selling their eggs and produce, or were making their purchases from the money they had earned. Another day our excursion was to Glendalough and the 'Seven Churches,' a lovely place, though the churches are in ruins. From the round tower of one we had a lovely view of the upper and lower lakes, around which hang many a legend. Did we get to St. Kelvin's Cave? I am not going to tell you, but will just say that it is a place very difficult of access, although not impossible. Of course, one of our drives was around the two mountains, and yet another to the Devil's Glen. Surely a more fitting name might easily have been found for a spot so lovely. One day, I must not forget, when we went to Ballybunnion, at the mouth of the Shannon, the great salmon river, by the little La Teegier railway, the carriages of which are run on a mono rail, and very near the ground. The passengers sit back to back, and are sometimes requested to change their seats, with a view to adjusting the balance, the wheels being under the center of each carriage."

lantic rollers come racing in, and you will agree with us that there is no monotony in what Mother Nature offers to those who make their homes, temporary or otherwise, upon our shores. As an inducement to come amongst us, let me remind you of the famous invitation of that true lover of Ireland, the well-known singer and poet, Tom Moore:

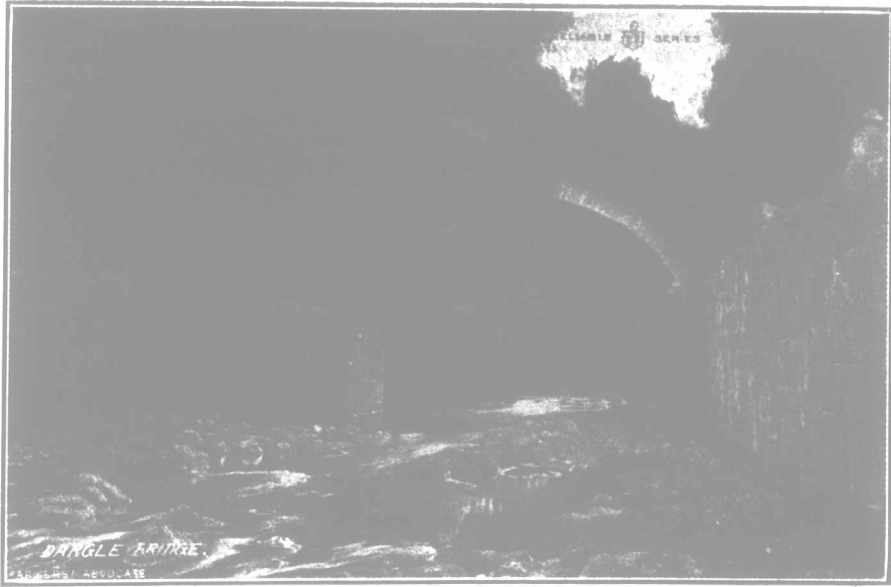
"'Sir Knight, I feel not the least alarm,  
No son of Erin will offer me harm—  
For tho' they love women and gold—  
In store,  
Sir Knight, they love honor and virtue more!'"

This little paper-talk upon a lovely little corner of a most lovely section of the dear old Motherland is offered, proxy-fashion, it is true, but with the hearty good wishes for a happy New Year to all, by your old friend and contributor, H. A. B.

**The Windrow.**

A statue to Sir Henry Irving was recently unveiled in London. Irving, by the way, was the first player knighted.

Andrew Carnegie recently gave \$1,250,000 to be used as a Hero Fund in Germany, in rewarding acts of valor and self-sacrifice in times of peace. Up to this time, Mr. Carnegie has made the following donations for this purpose: \$5,000,000 to the United States, \$1,250,000 to Great Britain, \$1,000,000 to France.



Dargle Bridge.

Speaking of the Irish as a people, my friend says, sympathetically: "They are very kindly and most hospitable, but so poor, many of them living in small whitewashed and thatched cottages. Occasionally the farmyard is somewhat too near the house-door, through which the chickens walk in and out as freely as do the children of the family. The work around here of the women and the colleens, in the various forms of knitting and lacemaking, would compare most favorably with that shown at the Irish Industries Exhibitions by any other part of Ireland.

"The winters south of Dublin are mild, as a rule, many flowers living and blooming out of doors, sheltered by the hedges of gorse and fuchsia; and if you are a lover of glorious seas, just come to the south-west coast of Kerry, when the long At-

Heat not your furnace for your foe so hot  
That it do singe yourself.  
—Shakespeare.

**Hope's Quiet Hour.**

Dear Hope,—I am a constant reader of the Quiet Hour, and find it very helpful in my daily round of life. I wish, however, that you would explain, if you can, why we are taught to pray for things; that is, make supplicatory prayers. I will try to make things clearer, if I can.

We are taught that all things are ordained from the beginning, that nothing happens to each one of us without the will of God, and that as God is unchangeable, so is His will from the beginning; hence, no prayers or supplications of ours can change God's plans for us, or influence in any way His unalterable will. Knowing and believing this, it has always troubled me to understand why we need to pray, unless they are prayers of gratitude, or praise, for daily manifestations of His love and care for us.

Why should we pray, for instance, for some gift or blessing, when we know that He will give it anyway, if it has been His will from all eternity, and that He will not bestow it if it has not been His will from before our creation? What change can OUR prayers make? In the knowledge of this I cannot understand "The prayer of a righteous man availeth much."

Now, dear Hope, I am not trying to get up an argument, but am just seeking some help upon a subject that I have long wondered about? Will you kindly make matters clearer in one of your weekly talks in "The Farmer's Advocate"?

Also, could you publish addresses of any parties or persons living in remote settlements, to whom we might send magazines or second-hand literature—it accumulates so, and would be most acceptable to many people if one knew about them?

A FAITHFUL READER.

**Your Father Knoweth.**

Your Father knoweth what things ye have need of, before ye ask Him.—St. Matt. vi. 8.

"Faithful Reader" wants to know the addresses of people "living in remote settlements," who would be glad of magazines or second-hand literature. That is a question which many of our readers can answer. I am sure there are hundreds or thousands of lonely farms where people are hungry for reading matter. Can you supply the information required?

The letter, given above, pleased me very much. It evidently is not written to stir up controversy—controversy about the holy mysteries of God is a thing I avoid as much as possible—but it reveals a real desire for more light.

There are many mysteries in the spiritual world, just as there are many mysteries in the physical world. We must not sit still and fold our hands until we understand them all. A farmer cannot understand why a seed, that is hard and apparently lifeless while it is kept in the light, wakes into new life when hidden in the earth. He cannot understand how it can gather into itself all that it needs from the soil around it, can gain power to climb up into the sunlight as soon as it gets out of sight of the sun, and can send out roots and stems, leaves and blossoms, fruit and seeds, passing on its wonderful life through ages yet to come. The wise farmer ponders the mystery, but he also acts on the knowledge which is already his. Because he knows that a seed can be multiplied by being put into the ground to die, he plants it, in faith that the precious grain which he has cast away will return after many days, and will not return alone.



ing with the association of angel-foot-steps.

A brief summary of the devices used by the poet are: LENGTH—To contain and yet not overstep the bounds of continuous interest. THE IMPRESSION—Beauty. TONE—Sadness; extreme and unconsolable. REFRAIN—As a keynote to whole poem. ORIGINALITY in use of refrain. LOCALITY—The scene so lately frequented by his friend, now so desolate to the lover. THE BEAUTIFUL WORD-PAINTING—Descriptive of the incident, its setting, the states of feeling produced, particularly the latter as portrayed in the five concluding stanzas. THE HOPELESSNESS AND UTTER DESOLATION are very effectively written in the last stanza.

Bruce Co., Ont. "BERNICE"

Essay II.

There is a weird fascination in all the writings of that strange genius, Edgar Allan Poe, and in none of his writings is this uncanny charm more prominent than in the poem under consideration. "The Raven" was written while the author was suffering severely from the shock of the death of a friend who was very dear to him, and, as he was known to have done on other trying occasions, he turned to his writings to relieve his sad heart, and poured out his grief in this heartrending poem.

In Tennyson's "In Memoriam," we have another instance of a poet's heartfelt grief, causing him to give to the world some of the most exquisite lines ever written. But there is a startling difference of tone between "In Memoriam" and "The Raven." Tennyson's grief is assuaged by a firm and even joyful belief in religion, and the happiness of a future life, where the parted friends shall be united in a state of never-ending felicity. But the unfortunate Poe has no such relief. The whole tone of the poem is a despairing wail of grief, with no alleviating gleams to brighten its darkness.

The length of the poem seems very appropriate to its arrangement of ideas. There is the quiet beginning, then the facts, one by one, leading up in intensity to the climax, and the abrupt finish after the climax is reached. The style of the poem reminds one of a quiet river, gathering volume by degrees, till with a burst of grandeur it falls over a mighty precipice.

In every poem, or story, there should be a distinct thread of thought, or expression, running from the first to the climax, uniting each and every separate action and thought together. Poe secures this continuity in a wonderful way, by the use at the end of each stanza of the words, "nothing more," at first, and finally the steadily-repeated refrain, "never more."

The poet shows his keen sense of the fitness of things, by picturing the raven instead of any other bird. It has long been considered a bird of ill-omen. It seems to have a particular fondness for storms. It was the associate of witches. Its blackness well accords with our Western ideas of color during the period of grief and mourning. It can be taught to speak a few words, hence there is no incongruity in its uttering the fatal words, "Never more."

Let us notice how effective the poet makes the setting of this strange tale. The December night is stormy. The elements are made to write in a fantastic grief, in accordance with the author's feelings. The dreary hour of midnight, so long associated with the supernatural, is the one selected. The dying fire has lost its brightness. The howling wind causes strange sounds around the windows, and rustles the silken curtains, as if by a ghostly hand. What a suitable setting for the weary, grief-laden lover, and the uncanny bird of ill-omen! There is none of the soothing effects we usually associate with Nature. There was no "surcease of sorrow," for the despairing lover in Nature. The feathered inhabitants of the forests, with their happy loves, would be a mockery to his state of mind. And the lonely, unnatural raven would have been just as much out of place among the cheerful songsters of the forest as the man himself.

This poem gives us a startling picture of the state of mind of a hopelessly despairing person, ranging from a state of dull, passive despair, to a frenzy bordering on insanity.

In the first two stanzas we find the lover sunk in the dull apathy of despair—trying to find in bodily weariness and mental exhaustion, the respite from grief he so anxiously craves. But the sudden tapping of his mysterious visitor rouses him to a state of nervous, bodily and mental activity, and while his reason suggests a commonplace explanation of the interruption, his inner consciousness at once connects the mysterious tapping with the grief that envelopes mind and spirit. But the actual sight of a living bird somewhat restores the ascendancy of his sense of the commonplace, and he even attempts to jest on the appearance and actions of this "grim, ungodly, ghastly, gaunt and ominous" bird.

But scarcely has he done so, when startled by the bird's abrupt and appropriate answers to his first question, and his following soliloquy, he understands, what from the first he dimly divined, that the ominous bird is no common fowl, but indeed a Prophet of Evil. Roused to a frenzy, he hurls his burning questions at his dreadful visitor—not hoping, it appears, for a favorable answer—but that he may hear his expected doom pronounced by that croak-

ing voice, whose verdict his soul recognizes as inevitable, though his lips vainly try to disparage, until he sinks into an apathy of never-ending despair.

If we notice in stanza twelve, and the third and fourth lines, we see where he relinquishes all his hopes—his feeble jest being the last expiring flicker of the light he hardly dared call his own. From that point until the climax is reached, in verse sixteen, his questions have a deadly, though hopeless earnestness, that allows no space for idle jesting.

Quickly and effectively is the story concluded in the two last verses. In a frenzy he hurls his defiance back at his tormentor, though all the time he knows his own helplessness, and the inevitableness of the raven's verdict. The excitable period passes quickly, and he settles into a gloom, deprived forever of love, and hope, and almost of life.

Few poems are as perfect in their mechanical construction as this one, but, like everything made by mortals, it has its imperfections. For instance, the words, "what thereafter is," is a rather awkward-sounding clause, and the rhyme between "lattice" and "thereat is," is not as happy as many in this admirable poem. Then, again, in the last verse, the raven is represented as perching on the bust of Pallas, above the chamber door, while the lover sits in his cushioned chair in front of him. They two are facing each other. Thus it seems like a physical impossibility that the lamp could be placed in such a position that the man could be in the shadow cast by the bird.

But such trifling faults do not detract from a poem of such marvellous beauty as this one under consideration. Poe was a master of rhythm, and there is a musical charm in the mere sounds produced by reading this poem aloud. The rhymes are particularly good, as good as our awkward, irregular language can produce, and the peculiar arrangement of the rhymes, in the middle of so many lines, is very attractive from its unusual character. His descriptions are in many cases exquisite, each word conveying just the correct idea. Notice how the maiden Lenore is described as "rare" and "radiant"—words that call up a picture of a maiden possessing every desirable quality of mind and person. Again, how well he indicates the elegant character of the room—its "silken" curtains, the "violet" "velvet" of the cushioned chair, the rare books, and the bust of Pallas, so appropriate for a student's room.

MRS. H. EDWARDS, Oxford Co., Ont.

[Note.—Poe kept The Raven for years before submitting it to a publisher, polishing and repolishing it from time to time. He himself did not state that it was written in memory of Mrs. Stannard; the fact that her death made so profound an impression upon him merely

led others to think that he might have had her in mind. . . . By the way, do you not find in "In Memoriam" an evidence of doubt and struggle before hope and tranquility are reached? See also Rabbi Ben Ezra.—Ed.]

The Raven.

Poe's "Raven" is considered to be the very best effort that his pen has left us. It is one of the most remarkable examples of a harmony of sentiment with rythmical expression to be found in any language. In the first line of stanza three we find a very good example of imitative harmony in the words "silken, sad, uncertain rustling," and we can almost hear the soft moving of the heavy purple curtains.

The lost "Lenore," for whom the poet is mourning, and endeavoring to win "surcease of sorrow" from his books, is partly an abstraction. When he returned from a trip to Europe at the age of twenty, he found that a very dear friend of his—the mother of a school chum—had died a few days previous to his arrival. Overcome with grief, and refusing to be comforted, he made many visits to her grave, often going in the night, even when dark and rainy, to hold fancied communion with her spirit. Later, he wrote the poem "Lenore," in which he idealized in his musings the embodiment of such a spirit in a young and beautiful woman, whose untimely death he imagined and used as the inspiration of the poem. Evidently, the "Lenore" mentioned in the "Raven" is the same, and this poem was written later, when his sorrow had had time to grow deeper and his loneliness more despairing; when his soul was filled with a haunting, nameless sorrow which he could not escape.

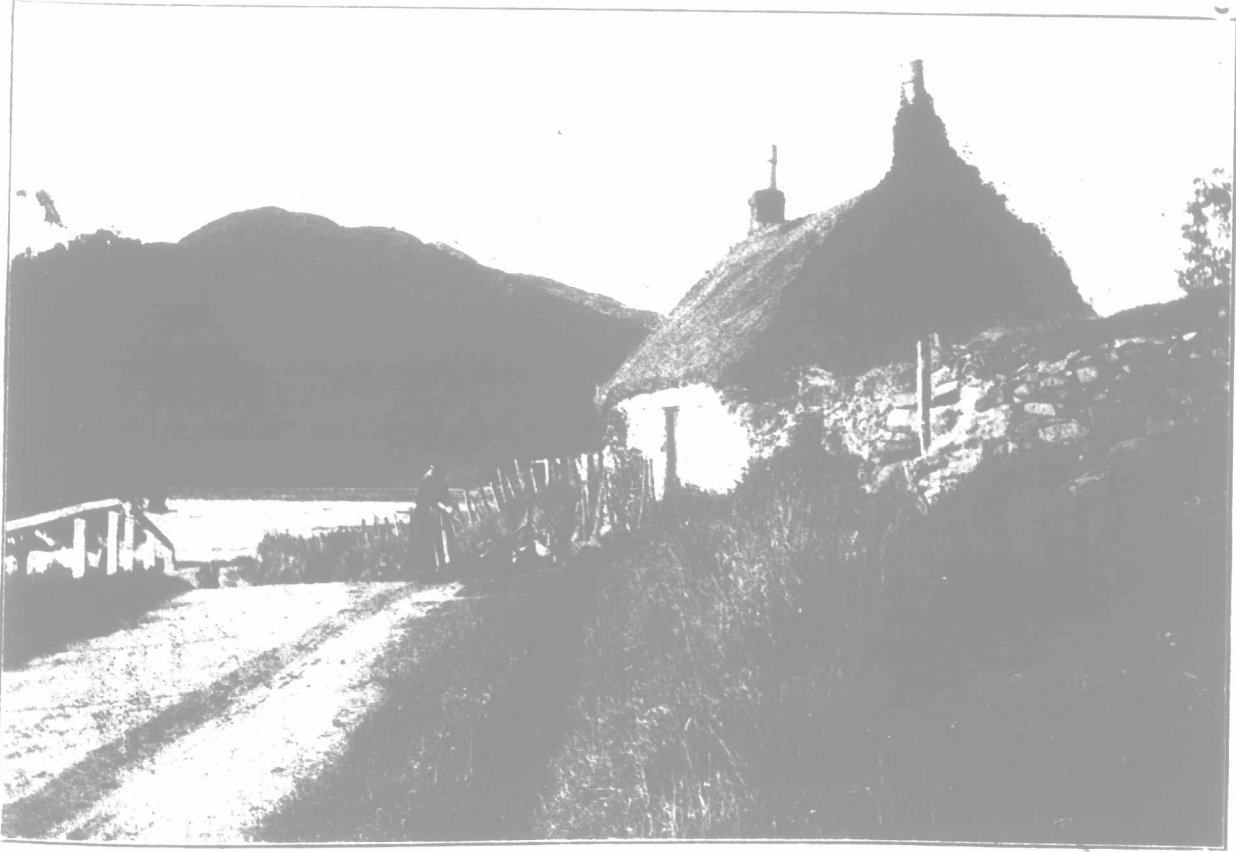
He had no particular motive in writing this poem, for it is merely the natural outpouring of his troubled spirit. Through it runs an undercurrent of the deepest, blackest despair and anguish. The poet is like a man groping vaguely and vainly in the dark for something, he knows not what, neither knows that he can reach it. This endless, weary searching for the unattainable is further shown in the repetition of the words "Never more." It signifies the very culmination of the soul's despair and bleak dreariness. Only the morbidly idealistic can realize it.

The raven was chosen because it is the symbol of despair, the bird of ill-omen. And to take it out of its natural surroundings, and place it on a sculptured image of the goddess of wisdom, enhances the supernatural effect. It seems to have come to him, not to console him, but to tell him that his misery is never-ending, that there is not any peace or rest for his soul this side of the grave.

A few words might be said here concerning the length of the poem. That is, certain parts might be amplified to a certain extent, and to some little advantage. For example, in stanza fourteen, where the subject of the seraphim-swung censer is both introduced and dropt, there was opportunity for a more elaborate description. It is evidently a hallucination, the after-effects of an overwrought mind. As Macbeth, in his excited imagination, saw a dagger dripping blood (which was the central object of thought in his mind), and exclaimed, "I see thee yet, and on thy blade and dudgeon, gouts of blood," so some phenomenon in connection with "Lenore," the poet's central object of thought, is quite natural. The ending of the poem is as it should be, decisive and final.

In the last part of stanza ten a more graceful wording is: "On the morrow he will leave me, as my hopes have flown before," in preference to, "He will leave me, as other friends have left before."

In the first few stanzas the poet has become worked up to a nervous strain, his nerves stretched to the snapping point. This is the result of his lonely pondering over his books until far into the night, when the weary mind refuses to retain its hold on anything, and becomes readily susceptible to fanciful fear. The entrance of the raven partly breaks the spell, and as a sudden reaction, he is inclined to see the humorous side of the situation. He is surprised at its ability to speak, and forms a reason for its limited vocabulary. Still sardonically interested, he wheels his chair in front



Near Arrochar, Scotland

of the rather peculiarly-decorated marble bust, and allows his mind to again drift. Almost immediately it returns to its former central thought, the lost Lenore. Despair again clutches his heart, and in stanzas fifteen and sixteen, desperate entreaty is apparent in his questionings, which in the next stanza changes to the despairing rage of realized helplessness. The repetition of the phrase, "Still is sitting," and the soft vocal sounds repeated in the last, give the finishing touch of resignation to the inevitable. His jests in the first part are merely the result of overstrained nerves. He does not feel in a joking mood, and so in this way seeks to dispel his nervous forebodings of evil. Therefore, if his mind had not been so wrought upon, he would not have become so desperately and fiercely in earnest as he is when the climax is reached in stanza fifteen. The beginning of this change is noted in the lines:

But whose velvet violet lining with the  
lamplight gloating o'er,  
She shall press—ah! nevermore.

The hour of midnight, as the time at which these events occurred, was well chosen, when "supernatural solicitings" are apt to come to the wakeful one. The supernatural effect is enhanced if the night is dreary, bleak and stormy, when the wind is straining through the naked branches of trees, or shrieking down a forsaken chimney. In Scott's "Lay of the Last Minstrel" it is at the witching hour of midnight that Deloraine is taken to Michel's tomb.

"Strange sounds along the chancel  
passed,  
The banners waved without a blast"—  
Still spoke the monk, when the bell  
toll'd one!"

The versification should be noted. The thought is fitted to the flow of the couplet. The verse, not the sense, dictates the groups of the phrases, while the metrical movement, and the recurrence of the rhymes give a peculiar melody, but when the reader has surmounted the initial difficulty, the movement appears very effective, and at the same time appropriate.

The last two stanzas give the crowning effect of the sudden entrance into the study of this bird of ill-omen. They show that the poet has suffered, and will suffer. He has experienced the "blackness of a midnight grief," and has been swept into the very heart of all the human storm of sorrow, but he does not "battle through the surge." There is the agony of it. These stanzas also cap the climax of the poet's skill in treating his theme. JULIA PHELPS.  
Elgin Co., Ont.

NOTE.—Some biographers state that Poe did not go to Mrs. Stannard's grave, that, in fact, his horror of graveyards was so great that he could not be induced to go near one after nightfall.

The portions of "The Raven" to which Poe himself took exception were:

(1) "Each separate dying ember wrought its ghost upon the floor." He himself did not clearly see how this might be, although one of our essayists in this competition has prettily explained the line as referring to the light ashy form sometimes left when a coal has burned itself out. Poe might have been glad had such a suggestion come to him.

(2) "The cushion's violet lining that the lamplight gloated o'er." He himself recognized that the lamplight could not shine directly upon the "lining."

(3) The physical impossibility of the lamplight streaming over the bust of Pallas and throwing a shadow of the Raven from the position stated, an impossibility noted by nearly all of our contributors.

We think the points taken by several in regard to the rhymes "latter" and "thereat is," also to the inconsistency of the scarp's footfall "tinkling on the tufted floor," have been well taken. If space permit, we would quote largely from papers sent by our students, but this is impossible. We must, instead, be contented with heartily congratulating the considerable number who succeeded so well in grasping the meaning and spirit of Poe's great poem.

In conclusion, may we quote a sentence from Goldwin Smith's "Reminiscences,"

which may be interesting to all who have been interested in this study:—"Excepting Poe, can it be said that America has produced a poet?" Such praise from a man who was so chary of praise is surely a high tribute to the poet who had to wait so long for recognition, and who, in his own day, was referred to by so eminent a contemporary as Emerson as "the jingle-man."

## 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.]

### A New Competition.

The same subjects are given for both boys and girls this time, but you will have a choice. Write on but one subject, and send your compositions so that they will reach this office not later than two weeks after the date upon which this paper is issued.

Subjects:—

- (1). A Skating or Snowshoeing Trip.
- (2). A School Concert.
- (3). Have Animals Different Dispositions, as People Have? Tell about your cows, horses, dogs, etc., which show such differences.

### The Picture Competition.

In the competition on Hauling in a Six-foot Sturgeon (picture competition), the prizes have been taken by Jack Long, Norman McKinney and Elmer Harding.

If ever any of you have a chance to see one of these fish, even a stuffed one in a museum, you will be very much interested. I suppose the old fellow which I saw first is still in the "Fisheries" at Ottawa, stiff and spiny as ever. Even there among stuffed specimens of all kinds, from the whale down, he made an impression. I have never seen one caught, but gave the competition in the hope that perhaps some of our Beavers had been so fortunate.

As you may know, the sturgeon most commonly inhabits the northern temperate seas, from which the females ascend the rivers (especially muddy rivers) in the spring to spawn, returning to the salt water in autumn. Some species, however, are found in our great lakes; these never descend to the sea. Sturgeons live on small fish, and upon soft substances which they stir up from the bottom with their long sharp snouts. They often jump out of the water. The flesh of the

common sturgeon of Europe is delicate, and is much used for food, especially in Russia. That of a larger species, the "beluga," is tough, but the air bladder is in great demand for isinglass. The eggs, which sometimes make up one-third of the weight of the fish, are regarded as a great delicacy, and the skin is used for making leather. The sharp-nosed sturgeon is found along the coasts of New England, New Brunswick and Nova Scotia; the short-nosed species is also found along these coasts, but most commonly in the Hudson River. Both of these, which are chiefly taken by the harpoon and with nets, are used as food.

### Essay I.

Dear Puck and Beavers.—The favorite feeding ground of the sturgeon is in the waters along the south coast of Nova Scotia. Thus the principal industry of the Province is fishing, and it brings in large profits also. The sturgeon caught in these parts are some of the largest of their kind.

These two men in the picture are brothers, and they live in a little cottage near the shore. Early each morning they go out in their little fishing-boat, the Primrose, to the place most frequented by the sturgeon. You can see the land from the place where their nets are cast.

When they awoke this morning they saw it was a fine day, so they did not put on their sou-westers or their heavy coats, but in their place they put on light jackets and soft felt hats, and they were equipped for their day's work.

Some mornings they have a great catch, but this morning in particular, they were astonished to see a large six-foot sturgeon struggling in their nets.

Seeing it would take all their strength to pull in the enormous fish, they braced their feet firm for their task. They began to draw in the net. They exerted all their strength, but the fish would not surrender easily. They tugged and pulled for about five minutes, but it was of no avail, and they were quite exhausted. And so they took off their coats and put them in the bottom of the boat, and with renewed vigor they struggled to haul in the immense fish. By this time the fish was quite exhausted by his strenuous efforts to escape, but with its remaining strength it strove to get free. Gradually inch by inch it was hauled nearer the boat, and it got so close that they took hold of its head, and hauled it up the side. It fell into the bottom of the boat with a thud. The Primrose rocked dangerously, but it soon righted itself.

The men sailed home with the biggest fish they had ever caught. When they measured it they found it to be six feet

long. It was the largest sturgeon caught that season, and the men were justly proud.

JACK LONG

Brooklin, Ont. (Age 10, Book IV.)

### Essay II.

Once a friend and I went fishing in Lake Superior. We had had luck the first few days, but luck came at last. We had put out our nets and returned to camp. Next morning we got our boat and started out into the lake. Now you must remember that the sturgeon is a strong fish allied to the shark. It is protected by bone plates. Well, we were hauling in our nets, when suddenly a terrible jerk on the net nearly pulled us overboard. At last the mighty fish rose to the surface. My friend picked up the spear and drove it into the monster. He made a plunge to get away, but he was caught. It took the two of us to pull him to the boatside. My friend let go the spear and grabbed him. Then we hauled him in and returned to camp. We got quite a quantity of oil from him. We were well pleased with our catch, for he measured five feet ten inches from tip of nose to tip of tail. All the campers and fishermen came to see the captured monster. None of them had ever caught such a large fish of its kind. Hoping to see my letter in print.

NORMAN MCKINNEY.

Ash, Ont. (Age 13, Class IV.)

Dear Puck and Beavers.—I have never written to Beaver Circle before, so I thought I would begin by writing on your competition, "Hauling in a Six-foot Sturgeon."

Once there were two fishermen, whose names were John Brown and his brother Edward. They fished in Georgian Bay. They had been fishing all summer, but did not have very good luck. One fine afternoon about the middle of September they went out into the deep and set their nets, hoping to have them full of fish by morning. When they had them all set ready to catch fish, they came in. They went to bed early, and awoke at half-past four in the morning. When they had their lunch and everything ready, they got in their fish boat, and started out to the place where they had their nets set. It was six o'clock when they arrived there. Then they started directly to haul in the nets as usual, but to their surprise it was not so easy. They pulled, and tugged, but finally had to let their nets down. They wondered what was making it so heavy, but they found out that they had got a six-foot sturgeon in it. They got a big hook and put it



Photo by Miss R. M. Miskoka.



in its gills, and they both pulled till they got it in the boat. Then they could easily pull in the other small fish that they had caught. The sturgeon weighed very heavy and John said that it was the biggest fish that he ever saw caught in a net.

After they got it in the boat it jumped and jumped, but they did not care, for they had something for their trouble. They set their nets again and ate their dinner and went in. Then they sold the fish at a good price.

ELMER HARDING.  
Ballymote P. O., Ont. (Book IV.)

**"The Farmer's Advocate" Fashions.**



6876 Fancy Blouse  
34 to 42 bust.

6877 Fancy Blouse,  
34 to 42 bust.



6878 Fancy Waist  
for Misses and Small Women,  
14, 16 and 18 years.

6886 Fancy Waist for  
Misses and Small Women, 14, 16 and 18 years.



6880 Misses' Six Gored Skirt,  
14, 16 and 18 years.

6888 Four-Piece Skirt  
for Misses and Small Women,  
14, 16 and 18 years.  
With High or Natural Waist-line.

Kindly order by number, giving age or measurement as required. Allow at least ten days in which to receive pattern. Price, 10 cents per pattern. Address: Fashion Dept., "Farmer's Advocate," London, Ont.

Have you secured a Set of Stencilling Patterns? Given to our present subscribers for sending in only one new subscription to "The Farmer's Advocate and Home Magazine," accompanied by \$1.50. Look up the particulars and read about our other premiums in our announcement on page 115 of this issue.

"Poppy," said little Willie Billups, "what does the paper mean when it says that when it comes to getting next to the Binks, Colonel Binks has all the other candidates lashed to the mast?"

**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.]

In a sister magazine (American) I read, a short time ago, a letter from a woman farmer, which has set me wondering many wonders ever since. "A few years ago," the writer says, "it became necessary for me to take charge of our farm through the death of the only man in our family, and now my problem is this: Men will not work for a woman if they can help it. I am neither disagreeable, close-fisted, nor a driver. I offer the regular wages, and ask no more of my hired help than my neighbors do of theirs. If anything, the conditions on my farm are easier than the average. And yet I cannot get hired men." . . . She finds it necessary, she says, in order to save hiring an extra man, to work with her "help" sometimes, at such work as she is perfectly able to do, being strong and healthy, and yet the men seem to resent her doing so, and have boasted to others that if she tries to "boss" them they will quit on the spot. Indeed, she has come to the conclusion that even "the most ignorant and most incapable working man considers himself the superior of any woman in judgment." As a consequence, she has become almost afraid to try new ideas in farm methods, and is compelled to meekly suggest that this, that and the other thing be done, where her neighbors would tell their workmen what to do, and have it done with no trouble. Naturally, she feels it an injustice that she cannot do as she pleases with her own land and stock.

Now, my wonders are these: (1) Whether Canadian women who find it necessary to manage farms themselves have the same difficulty. (2) If so, if any of them have discovered ways and means to surmount it. (3) If any of the women-farmers who subscribe to our magazine have demonstrated which are the crops, etc., which women can manage best by themselves, thus rendering themselves to a greater extent independent of "masculine" assistance, as many a woman who is left without husband or son must needs be. . . . Now, would any of you who have been all through the mill like to talk a little about this? D. D.

**An Interesting Letter.**

Dear Dame Durden and Chatterers,—I'll begin this time with the old, old worn-out, but ever new phrase, "A happy New Year to you all."

A happy New Year, a happy New Year, May this just entered be,  
A happy, peaceful, bright New Year,  
Be granted thine and thee.

God grant that it may be so to every one of us. May the sick be made well, and the sad at heart cheered, and those who are afar from the fold brought back, so that they may know what true happiness is, and know the joy and exhilaration of living. I wonder how "Lankshire Lass" is faring now. It is a long time since we heard from her.

We have had lots of good things in "The Farmer's Advocate" lately. That story of a Commuter's Wife makes me long for spring, so that I can get out into my garden, but at present some of it is under 10 feet of snow. Snow is good in its place, and makes a good warm covering for the flower roots and shrubs, but we can even get too much of a good thing sometimes, and some of them may be badly broken down. But that is not what I sat down to write about. I am just like an old hen, rambling all over the place, giving a scratch here and a scratch there, instead of setting down on the nest and attending to business.

It was the stories of the pioneers that I wanted to talk about. What privations and hardships they came through, not only for their own sakes, but for the sakes of their children, and it is all their descendants in general who reap the benefits to-day.

It was a good idea of "The Farmer's Advocate" to offer prizes for such stories, so that they can be preserved, for to many of the younger generation such stories read as fairy tales, and not as facts that have really occurred.

Too many of the present day have things made too easy for them, and they are not one whit happier on that account. True, if they were forced to get up against something, they might turn out to be better stuff than what we imagine, and I think it is a good thing for them to be so tried, so that other people can see of what kind of mettle they are made.

All honor to the hardy pioneers who settled this country. Things must have been pretty black in the homeland when they set out across thousands of miles of raging waves in sailing vessels for the land of promise. And after arriving here there was the gigantic task of clearing the forest, and living in rude huts and on humble fare (and often not enough of that), and of the wild beasts, and all the other things they had to contend with. Those of the present day are living in palaces and reclining on feathery beds of ease in comparison. In looking over the country now, what do we see?

Where once the stately forest trees  
Their waving branches spread,  
We now look o'er the smiling land  
And see fine fields instead.  
We see fine fields, fine farms, fine homes,  
Where peace and plenty reign,  
Where many a thrifty husbandman  
Rejoices in his gain.

But I am afraid that there may be some who are just a little ashamed of the humble origin from which they sprung. There may be a few snobs of this class, but I sincerely hope there are not many.

To such I would say that they ought to be glad and thankful that they had such ancestors. Many of them came to this country for conscience' sake, and were men and women of sterling quality. If it had not been for their abiding faith and trust in God, they could not have come through as unflinchingly as they did. In them has been proven the words: "An honest man's the noblest work of God." Does anybody look down on Lord Strathcona or Andrew Carnegie (and lots of others) because their origin was of the humblest?

No, rather they would say: They were smart men, those, to rise as they did; and so were many of the pioneers. The most of you know the song, "A man's a man for a' that," in which occur the lines:

"The honest man tho' e'er sae pair  
Is king of men for a' that."

press forward to that which is better, and we must remember again, that although the pioneering days are over, we have still our part to do in the making of Canada. Let us see that we do it in all singleness of heart, and ever pray.

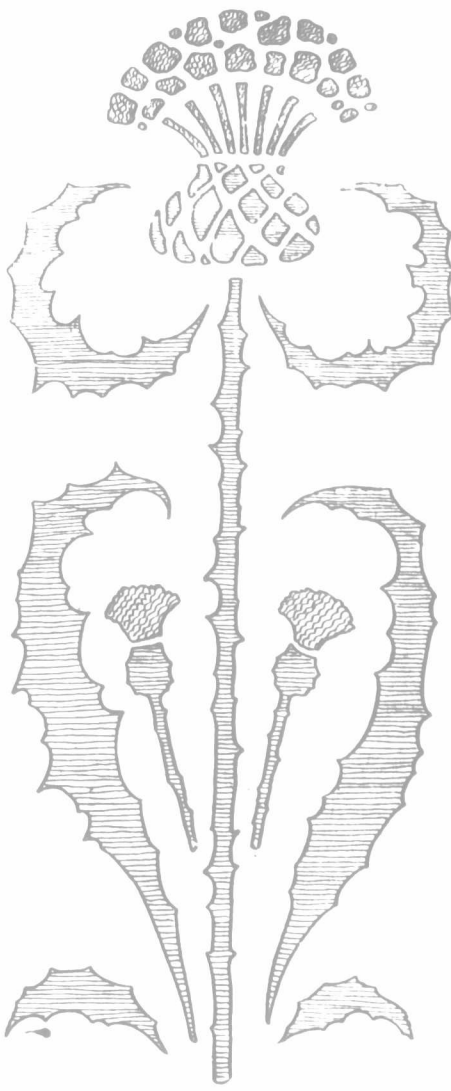
May peace and plenty ever reign,  
May blessings fall in showers,  
And God protect the land we love,  
This Canada of ours.

Grey County, Ont. GREYBIRD

**Stencilling Designs.**

Accompanying this are two of the designs in our "Farmer's Advocate" stencilling sets.

PURPLE LIGHT GREEN



Thistle Design.  
For stencilling.



GREEN PINK

Wild Rose Design.  
For stencilling curtains or table-cover.

It is not what our forefathers have been. It is not what we have been. It is what we ARE. And let us remember that although the homes of the pioneers were humble, and the homes of some of the present day very pretentious, that:

"There is a Home beyond the sunset  
glory,  
A fairer home than mine, though fair  
it be;  
Its beauties are disclosed in Bible story,  
Its gates are open wide to you and  
me."

We are told not to look to those things which are behind, but rather to

cilling sets. Can you imagine anything prettier than pure white muslin bedroom curtains stencilled with the wild rose design all along the border, in pink and green? And these are only two out of 20 attractive patterns. We procured these sets to oblige subscribers who kept asking questions about stencilling, and still have a number on hand. If you wish to procure a set to have your curtains all ready by house-cleaning time, we would advise you to send in your order at an early date. Instructions go with each set. The price is \$1.00 per set of 20 patterns, or a set will be sent you free if you send in one new subscription to "The Farmer's Advocate." The latter offer, of course, holds good only for present subscribers.

Quilt Pattern.

Our thanks are due to the following, who sent quilt patterns for "A New Nooker": Miss A. Fleming, Camlachie, Ont.; Mrs. Geo. Mahoney, Wolsley, Ont.; Mrs. John Shaw, New Liskeard, Ont.; Miss J. Jameison, Randwick, Ont.; Mrs. E. C. Nelson, Fulton, Ont., and others. No more "basket" patterns will be needed.

Poultry Journal—Crocheting.

"Farm Poultry," Boston, and "Poultry Review," Toronto, are devoted especially to poultry-raising. Write for sample copies and price. I have asked a lady who has done all kinds of crocheting to write us an article on the subject, dwelling especially on "Irish Crochet," which is the prettiest of all. It will appear at an early date. (For a subscriber.)

Shoemaker's Wax.

For Mrs. Ferguson. Scientific American gives the following method for preparing shoemaker's wax: "This is made by melting together the best Swedish pitch and tallow in a vessel over the fire. The quantity of tallow must be determined by experiment. Roll into balls. The right kind of pitch is of a brown color when fractured."

Chinese Lilies Again.

My father has taken "The Farmer's Advocate" for a short time, and I thought perhaps you could advise me in regard to Chinese lilies.

When I bought the bulbs there were a number of small ones fast to the large ones. I put them in water, and the large bulbs have blossomed. Can I treat the small bulbs in such a way that they will grow large and bloom next year? Will the large bulbs be of any use next year? E. M. Y.

Welland Co., Ont.

I have referred your question to the most prominent florist in this city. He says you might try planting the bulbets out during the summer, then bring them into the house in fall, planting them in earth and giving plenty of moisture. In two or three years of such attention, the bulbs might be developed enough to amount to something. He says, however, that the mature bulbs are so cheap that it is scarcely worth while bothering about developing new ones in this country, as the process is so long and tedious. Did you read the account given recently by a contributor to this department in regard to her treatment of Chinese lily bulbs? Her letter may contain a suggestion for you. The old bulbs are thrown away, so far as I can find out, after flowering.

Smoked Hams.

Could you please give me a recipe for smoking hams? I have no smoke house, but have heard of hams being smoked in a barrel just for home use. What kind of wood is used? I have some nice hams, and would like them smoked. I am a subscriber. RUBY, York Co., Ont.

Will someone who has successfully smoked hams in a barrel kindly answer? I have heard of smoking hams by building a fireplace in the ground and connecting it by an almost horizontal line or pipe with the barrel, letting the smoke enter at the bottom and pass out at the top.

Things Good to Eat.

Good Chocolate Ice. 1 cup sugar, 1/2 cup cream, 1 egg, 1 square grated chocolate. Mix all together without heating, boil, beat until smooth and put on cake. An easy and good method.

White Icing for Cake. Take equal quantities of granulated sugar and sour cream, and half a cup of nutmeats. Boil until a little dropped on a cold tin will form a soft ball. Stir until half cold and put on cake.

Seed Cake. Beat together 2 cups sugar and 1/2 cup butter. Next beat in two well-beaten eggs, then a cup of sweet milk, and last of all 3 cups flour, in which 1 1/2 teaspoons baking powder have been sifted. Stir in 1 1/2 teaspoons caraway seeds and bake in a loaf tin.

Butter Caramel Frosting.—Boil 3 cups brown sugar, 1/2 cup cream and 2 table-

spoons butter about 5 minutes. After boiling actually begins, add 1 teaspoon vanilla, and beat until the mixture begins to thicken.

Devil Cake.—1 cup sugar, 1 tablespoon butter, 1 cup milk, 1 teaspoon soda in 1 tablespoon hot water, 2 squares chocolate, 2 eggs. Cream the butter and sugar together, add 1/2 cup milk, then add dissolved soda. Cook the chocolate, the remaining half cup of milk and the egg yolks until thick, stirring all the time, and stir into the first mixture while hot; then add 1 1/2 cups flour. Bake in two layers. Make the frosting as follows: Put 1 cup sugar and 1/2 cup water in a saucepan, and boil until the syrup will thread from the end of a spoon. Have the whites beaten stiff, and add the syrup gradually, heating all the time. Beat until thick enough to spread. Add flavoring.

Welsh Rarebit (without ale).—1 cup hot milk, 1/2 lb. cheese grated, 1/2 teaspoon salt, 1/4 teaspoon mustard, 1 teaspoon flour, 1 teaspoon butter, 1 egg, dash of Cayenne. Heat the milk. Mix together all the other ingredients, except the butter, and add the milk when hot, a little at a time, to the mixture, stirring all the time. Cook until smooth and creamy, then stir in the butter. Serve very hot on slices of buttered toast. Remember that the milk must be added slowly.

Plain Pound Cake.—2 cups white sugar, 1 cup butter, 1 scant cup milk, 4 eggs, 3 cups flour, 3 teaspoons baking powder, a little salt, vanilla to flavor.

Good Sausage.—For every 55 lbs. lean and fat pork, chopped fine, mix together 1 lb. salt, 6 ozs. black pepper, 1 teaspoon Cayenne, a handful of powdered dried sage. Work the mixture well through the meat, then stuff in skins or pack in a crock, putting 2 inches of boiling lard on top. Sausage meat may also be canned, or stuffed into small muslin bags, which are afterwards dipped in melted lard and hung in a cool place.

Carrot Jam.—To 2 lbs. carrots cooked and pressed through a colander, add 1 lb. sugar, and the juice and grated rind of 2 lemons. Cook slowly until thick.

Our Scrap Bag.

A toaster placed under a kettle will prevent burning when cooking anything that scorches easily. Wire mats are made for this purpose.

To restore black lace that has grown rusty, first soak in a strong solution of vinegar and water, then rinse in coffee and iron while damp with a piece of flannel laid over it.

When sewing hooks on a wash dress, try sewing the eyes on the upper flap and the hooks on the under. The outer flap may then be ironed smoothly.

Lemon juice plentifully applied before laundering will usually remove ink stains from linen.

For pantry shelves try putting on two coats of paint, then one of hard enamel. This makes a hard, clean, sanitary finish.

Never put cake into too hot an oven, as, if so, a crust hardens almost immediately over the top, and the cake becomes heavy. The batter should rise in a moderate heat.

To enamel a bathtub, give 6 coats of white lead, letting each dry thoroughly, then give a final coat of good white enamel.

If you like a fine-grained cake use cream of tartar and soda instead of baking powder. Mix in the proportion of 1/4 soda, 1/2 cream of tartar.

Cleaning Straw Matting. Wash with warm water and salt. Water alone makes it yellow.

To Remove Grease Spots. Brush well with some talcum powder and leave for a day or two, then brush out the powder and wash in clear water or water and naphtha soap.

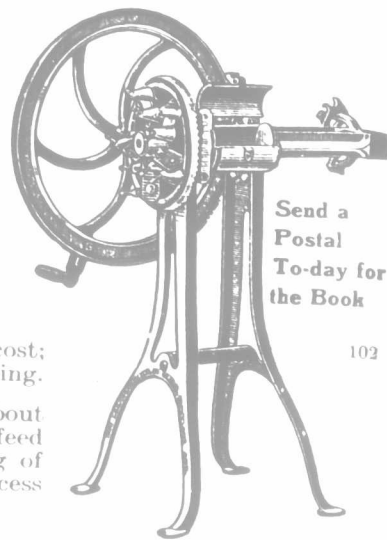
To Wash an Ice-wood or Shetland Excitator. Put a tablespoon borax in a large basin of warm soft water. Let it dissolve, then make a strong suds of water, soap, and borax. Wash the shawl gently, adding cold running water, but never wringing. Rinse in warm soft water of the same temperature until free of all soap, then lay flat upon a clean sheet, in the sun if possible, to dry, keeping it well aired. When quite dry hold for a few minutes in the steam of a boiling kettle.

To make a very good crust for short-cakes, you do not need a rich mixture.

# Double the Egg Yield of Your Flock!

The poultryman who has been feeding grain and who starts feeding fresh cut green bone, can cut his feeding costs in two and double his egg yield—to say nothing of being able to raise better table fowl. The

## PEERLESS GREEN BONE CUTTER



will enable you to feed at a cost of 1/16c. per hen per day—to get more eggs—a greater percentage of fertile eggs—more sturdy new-hatched chicks—to push your pullets to earlier maturity—to have younger layers—to send your fryers and broilers sooner to market and get higher prices on a lessened feeding cost; in fact, to make more money in poultrying.

Send for our FREE book that tells all about green bone feeding, how to buy, cut and feed green bone RIGHT. The correct feeding of green bone is the foundation of poultry success—send a postal to-day for the book.

LEE MANFG. CO. LTD. PEMBROKE  
146 Pembroke Rd. ONTARIO - - CANADA

# The Famous "Prairie State" Incubator

is now "Made in Canada" by Gunn, Langlois & Co., Limited

As the largest egg and poultry house in Canada, we have been trying for years to interest Canadians in "More and better eggs and poultry". The demand for poultry products is growing fast—prices are high—but the supply is not increasing. Why?

Chiefly because, as a thorough investigation shows, Canadian farmers lack the facilities for producing eggs and poultry on a really profitable scale.

To be able to market eggs and poultry in the "off seasons", when highest prices prevail, you must be able to hatch as many healthy chicks as you want, when you want them, and to do this you must have a thoroughly reliable incubator. We found no incubator made here capable of meeting this demand.

We decided, therefore as the first step in helping to make Canada's poultry production what it ought to be, to find, or if necessary invent, an incubator that would make good every time—to manufacture it in Canada—and to sell it at the lowest possible price.

A searching and unbiased investigation of every incubator on the market convinced us that the "Prairie State" is the only incubator whose principle is correct—whose workmanship is honest throughout—whose results have been proven, thousands of times, by experts and novices, under favorable and unfavorable conditions, invariably better than any other incubator can produce.

We found more "Prairie State" incubators in use among really successful Canadian poultrymen than all other makes combined. The "Prairie State" has received 326 awards for efficiency in competition with the best of the other incubators in America, and for more than a quarter of a century its popularity has been steadily growing among poultrymen who know.

These facts satisfied us that the "Prairie State" is the incubator Canadian poultry raisers need—the incubator which we could safely endorse, make and sell. So we have made arrangements to manufacture the "Prairie State" in Canada, in our new factory at Ste. Therese, Quebec—the finest wood-working factory in the Dominion.

Our reputation for nearly 40 years of square dealing is behind our positive claim that the "Prairie State" is the best incubator on the market to-day, bar none. It hatches more strong, healthy chicks than any other incubator because—

1. It gives the correct normal heat at both top and bottom of every egg in every part of the tray, regulated to a fraction of a degree.
2. Its sand tray, beneath the egg tray, gives an absolutely even and carefully divided supply of moisture to every egg.
3. It gives a steady, even supply of pure, fresh air, free from any trace of lamp fumes, with no draft in the nest.
4. It works satisfactorily under practically any and all conditions.

Let us receive your orders promptly, we manufacture in honesty and to the best of our ability, and you will be pleased to receive your "Prairie State" incubator, which will give you a steady supply of fresh, healthy chicks, and a fine supply of pure, fresh air, free from any trace of lamp fumes, with no draft in the nest.

Write now for our Catalogue, which will give you a free copy of our tests, and a full description of our incubators, and a list of our dealers.

To Gunn, Langlois & Co., Limited, Manufacturers of "Prairie State" Incubators, Hovers and Poultry Supplies, 235 St. Paul St., Montreal.

Each poultryman by return of a postal card will receive a free copy of our "Prairie State" Catalogue.

Household Economy.

How to Have the Best Cough Syrup and Save \$2, by Making It at Home.

Cough medicines, as a rule, contain a large quantity of plain syrup. If you take two cups of granulated sugar, add one cup of warm water, and stir about 2 minutes, you have as good syrup as money could buy.

Winter is Hard on the Complexion!

It is often dreaded by the women anxious to retain or develop their good looks. The two extremes, indoor heat and outside cold, threaten a good complexion.



Princess Skin Food

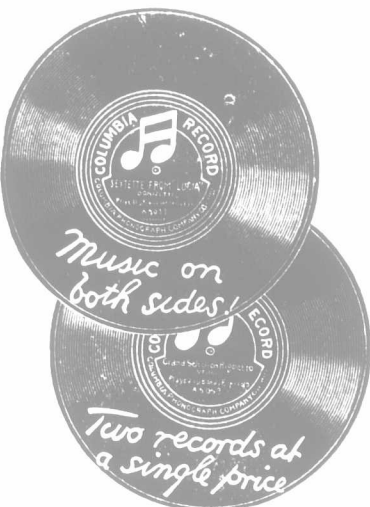
The most beneficial unguent and emollient for this purpose made. Use it before dressing to go out. After wiping it off, use a pure, delicate face powder (the Princess Powder, 50 cents, is excellent), and you will come in knowing that your skin is improved instead of harmed.

Superfluous Hair

MOLES, WARTS, etc., eradicated permanently by our most reliable method of Electrolysis. Satisfaction assured. Booklet "E" and sample skin food mailed free.

Hiscott Dermatological Institute 61 College St., Toronto.

PHONOGRAPHS and RECORDS



EDISON, VICTOR, COLUMBIA. \$19.60 to \$240.00

Williams Piano Co., Ltd., 194 Dundas St., London.

FARM LOANS

At 5% 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.

PLEASE MENTION THE ADVOCATE.

crust should be so dry that it is difficult to roll. Half a teaspoon of baking powder and a tablespoon (level) of sugar added to the flour for each pie is an improvement.

Corn Cure—Equal parts carbolic acid and glycerine applied every night with a camel's-hair brush, will usually cure hard corns if patiently continued.

If stove blacking does not adhere to

the stove, try adding 3 or 4 drops of glycerine or molasses to the blacking.

Five cents' worth of powdered orris root makes a very good shampoo for anyone who is afraid to wash the hair in cold weather. Brush the hair at night, rub the powder in well, then tie the hair up in a towel. Next morning brush out thoroughly.

Our Ingle Nook Page of Opinions.

Our subject for this month is, "What has been the most helpful thought or conclusion that has come to you in your home-life?"

We thank, very much, the ladies who have so ably contributed their thoughts on this most important question.

Will any reader who would like to contribute to our page kindly send her name and address? We are sending out many letters to ladies who have been recommended to us as possessing worthwhile ideas, but of course we cannot come into touch with all in this way, and we shall be very much obliged indeed to any volunteers who would like to help our page along.

Do Your Best and Leave the Rest.

We hear and read a great deal nowadays about houses with home-life and houses without home-life: Who has not seen both?

Home-making responsibilities are many and various. Where did the good old-fashioned mother get her training? We feel quite safe in saying, in the school of experience. Circumstances which need careful consideration arise almost hourly in the home, and unless someone has a clear brain and steady hand, the result is sure to prove serious.

One must have a goodly supply of strength in reserve to meet the difficulties and perplexities of daily life in the home. In homes where poor help or no help is kept there are times when the strenuous life would seem to overcome, and one would long to take wings and fly away from care.

A true and tried saying is, "Prevention is better than cure," and some ways to prevent calamity in home-making are to systemize one's work, cut out the superfluities and not worry. SAVE THE NERVES, AND DO THE BEST YOU CAN WITH THE MATERIAL AND TOOLS AT YOUR DISPOSAL. There are women who worry before, during and after the day's work, and so have performed the tasks three times, and are unfit for the next day's demands.

We cannot expect our daughters to be successful as home-makers unless they see some beauty and happiness in our efforts.

Some housekeepers think they cannot accomplish anything unless every circumstance is just so; and when we see the pucker of worry upon a housewife's brow, we immediately conclude "she has worried," and therefore has not "left the rest," even though she may have done her best.

How truly it has been said: "If you worry you do not trust, if you trust you do not worry." Let us strive to do our best in our homes by keeping cheerful, providing good books, music and bright occupation for those in our care, keeping in mind that our life in the home carries influence to other homes.

One may say it is not natural for everyone to be cheerful and calm through everything. We quite agree; but do we naturally do right? Unfortunately not. Then away to school we must go again, to relearn the lessons we forgot to apply. Be sure we "do our best," and then be quite as sure to "leave the rest."

Brant Co., Ont. S. FOWLER.

The Most Helpful Thought.

I think the most helpful thought or conclusion that comes to us in our daily life is the one THAT WE ARE ENDEAVORING, WITH DIVINE AID, TO DO OUR DUTY to the best of our ability, in the position in which Providence has placed us. When we realize that we are striving earnestly to do this, the thought of it is a tower of strength to us in our everyday duties, and responsibilities, and gives a zest to all that we

do. It nerves us to undertake things which otherwise would seem too much for our strength; but when we realize that all is done for those who are near and dear to us, we do not think any task, however arduous, a trouble.

The true wife does not think it a trouble to do all she can for the comfort of her husband, and her greatest joy is to be a true helpmeet to him, and when conditions are as they should be, they will be mutually helpful to each other; and in this she will reap her reward, for she will be like the virtuous woman spoken of by King Solomon: "The heart of her husband doth safely trust in her," and "She will do him good and not evil all the days of her life."

Then, what a comfort to the true mother in the thought that she is caring for and training her children in the way in which they should go; and to see them grow up healthy and strong in body, and their minds expanding day by day; caring for their health, their culture and their happiness, and leading their thoughts to higher things than those of this life; and after her labors to know that she is appreciated—"Her children rise up and call her blessed."

In caring for her home, too, she is fulfilling her duty to her country, for what a glorious land it would be, if all our homes were under the influence of such mothers! who realized to the full that their greatest inspiration and encouragement was the thought, "She hath done what she could." There is more help and strength in the thought of this than in any other, and it gives a repose and peace which will help to lighten our labors when amidst the cares and anxieties of a busy life, and a pleasure and solace to us in our declining years. The thought that we have realized our responsibilities, and endeavored to do our duty under all circumstances, will give us a peace of mind which nothing else could do.

"JENNY LIND." Bruce Co.

Her Answer All Ready.

When your letter came, asking my opinion of what has been the most helpful thought or conclusion that has come to me in my home life, I had it all ready.

It is, that nothing helps me so much as the thought always with me, THAT MY WORK OF DISH-WASHING, CLEANING, COOKING, AND ALL THAT BELONGS TO HOUSEKEEPING, IS WORTH WHILE DOING.

I believe there is no other work so necessary for a woman to do, and if only one can do it well enough and keep cheerful and kind, there is the comfort of knowing that you are helping others too.

SARAH. Huron Co., Ont.

God's in His Heaven, All's Well with the World."

(Browning)

"I looked far back into other years, and lo! in bright array, I saw, as in a dream, the forms of ages passed away." Well, not exactly the forms of past ages, but several outstanding events which, taken altogether, lead one to moralize a bit, and to sum up things into one grand total. As our life goes on we find hills to climb and valleys to traverse, rivers to ford and deserts to cross, ups and downs continually, sometimes brightness and sometimes shadow, but all leading to the end of the journey, and all necessary for our mental and spiritual growth.

When we sit down to meditate we find that, though we did not think so at the time, everything has worked out well.

Little Giant Seeder advertisement with image of a farmer and text describing the seeder's benefits.

This Book Free! advertisement for a book on farm properties, help and situations wanted.

CHEESE FACTORY FOR SALE advertisement for a dairy district with equipment.

FARM HANDS WANTED advertisement for a married and single person.

FOR SALE advertisement for iron, pipe, pulleys, belting, rails, chain, wire fencing, iron posts, etc.

MEN WANTED advertisement for men 18-35 for firemen, \$100 monthly, and brakemen, \$80, on all Canadian railroads.

O. A. C. NO. 21 SRED BARLEY advertisement for a grand lot now ready, 1600 orders last two seasons.

VANCOUVER ISLAND advertisement for sunny, mild climate, good profits for ambitious men.

WANTED advertisement for a good farm hand, single, by the year.

WANTED advertisement for an experienced married man, to take on half shares hundred-acre farm.

WANTED advertisement for a thoroughly capable manager for large mixed farm—fruit, cattle and grain.

WANTED advertisement for a married man, experienced in fruit farming, by the year.

The Delhi Tannery advertisement for horse and cattle hides to tan for robes, coats, etc.

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 Embro; nearly all cultivated, some good timber; \$3,000 red pressed-brick residence, slate roof, cellar under whole house, furnace; 2 barns, 35 x 60 and 30 x 50, no basements. Price, \$7,500; easy terms. Could take small farms in exchange for larger farms.

R. WAITE, Box 328, Oxford St., Ingersoll, Ont.

FARMERS!

Crib your wells with Holland's Patent Concrete Well Crib Blocks. No wasted material when moulded with Holland's Concrete Molding Machines. Easiest and quickest made, and cheapest. Write for particulars. Address: J. H. Holland, Centreton P.O., Ont.

BEST SEED POTATOES Catalogue of 70 varieties free. A. G. Albridge, Fisher's, Ontario County, N. Y.



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grateful for the things that have been. If mother had not cared for gardening, I might have spent restless years in groping before I knew that I wanted a garden, cramping my mind and body in a city apartment, or else stifling equally in some newly-made suburb. Treeless made-country is, I think, even more arid and monotonous than the city streets. I simply shudder at the awfulness of new places, where a level onion field, perhaps, having survived its usefulness, and sunk into weedy slumber, awakes with a start to find a trolley whizzing down the highway to the market town. Straightway it is dissected, and offered in building plots of the "Why pay rent? Build your home on easy terms" order.

One can readily tell what these hot little gardens will be; for even though the witch's cauldron period has passed, there are other stock floral ornaments for small lawns, the coleus anchor and the weeping purple beech, a small tree that owes its lachrymose appearance to having branches grafted on upside down, so that eventually they grovel in the dirt. The strange thing is that on a near-by cross-road an acre or two of virgin soil, with a dozen good trees, may often be had at the same price as the arid lot.

"But," says some willing though gardenless woman, "my parents did not have a garden for me to inherit. Am I therefore to be shut out of Eden? What am I to do?"

Do? Buy the ground on the cross-road with the trees, and make a garden with all possible speed, that your children may be born with the love of outdoors in them.

At present there is a lull in our garden operations, and the soothing haze of burning leaves hides the bare outlines of the new beds around the sundial. The violet plants that are to yield Evan's buttonhole flowers all winter, are comfortably settled in the frames in the sunny corner between stable and bank.

An ordinary frame, with three sashes, such as we use for seeds in spring, will hold a hundred violet plants, and these, if carefully protected by mats from freezing, and well sunned to encourage bloom and keep out mould, will furnish my commuter with his daily flower until the outdoor violets come in bloom, besides giving his wife many a handful of fragrance to put in the iridescent glass vase that stands on her desk-top for the harboring of lovable flowers.

We bought the violet plants this year, but next season we shall grow our stock. The lilies-of-the-valley have spread wonderfully in my absence, and must have a thorough weeding, and be thinned by having six-inch trenches cut through them before they are bedded with manure for the winter. We have always had glorious lilies, because, in the face of gardeners and tradition, mother planted them in sunny, rich soil, instead of letting them starve and dwindle in the shade. They grow south from the apple tree, thickly as the grass, their only limit being the amount of room we can give them.

Evan made a discovery early this morning, when the dull red light of the sun, falling between the bare, interlaced branches, drew traceries on the windows, and shot long rays of the gorgeous shifting hues of stained glass upon the floor, for the moment turning the plain frames into a latticed casement. He saw that such was the slope of the land that, by cutting an opening through the thick maple branches, the garden would be before us like a picture framed in leaves.

Then a second idea, born of the tree shadows, is a plan to replace the windows of the square, shallow bay with latticed casements, and under them a low, broad window-seat, from which we may enjoy the garden from afar.

The morning after my birthday the inevitable conversation with Aunt Lot took place. Conversation? No, Interview is the word—an interview conducted on the parish visitor on-

THIS ADVERTISEMENT IS WORTH  
**A HUNDRED DOLLARS TO YOU**

Clip out this ad., write your name and address on the margin of it, and mail it to us at once. You will promptly receive our Post-Holiday Sale Offer that will save you One Hundred Dollars on the purchase of as fine a piano as anybody in your county owns or can buy. But you must act quickly—the number of pianos at this special price is limited.

Every piano in this sale is brand-new, straight from our modern factory, and warranted in every detail. The reduction of \$100 from the regular price is bona fide. Thus this advt. actually represents a saving of \$100 to you.



You, or any musical expert, can test the piano in any reasonable manner before you buy it. You can take it on easy terms, if you wish. You can choose that style and finish you like best. Clip out this advt. and send it now.

Bear in mind that every piano in this sale is absolutely new and perfect—exactly the same Sherlock-Manning Piano that has won so great a fame for exquisite tone, long service and moderate cost. Clip out the advt. and mail it to us at once. You will get full particulars by return mail. Address:

**Sherlock - Manning Piano & Organ Co., Ltd., London, Canada.**

**Hamilton Incubator Hatches Big, Healthy Chicks**

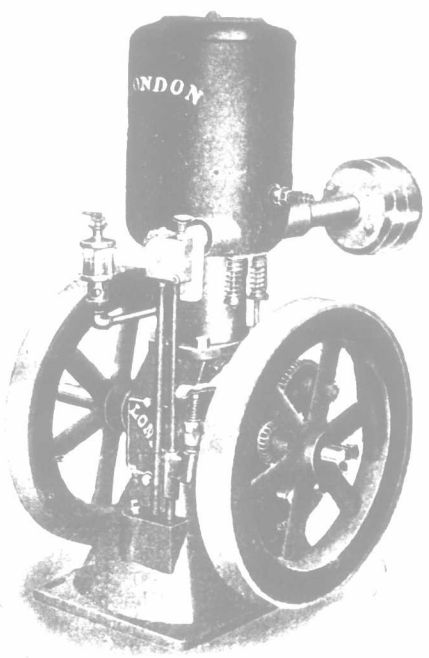
You never find the Hamilton guilty of hatching deformed chicks, or allowing chicks to die in the shell. That is because the heating and ventilating systems introduce the correct amount of life-giving oxygen and moisture into the egg-chamber—because the heat-regulating system is accurate to a fraction of a degree—because the directions are so simple and correct. The Hamilton Incubator hatches every fertile egg. The chicks are so plump, healthy and lively they make the old hen jealous of the Hamilton. You can make a success of hatching chicks with the Hamilton Incubator, and just as big a success of raising them with the Hamilton Brooder. Send for our free booklet and get complete information about the always successful Hamilton Incubators and Brooders.



Act as Our Representative

In your locality. Take orders for Hamilton Incubators and Brooders. Our line is a ready seller. And you will want to be our agent as soon as you read our proposition. Write us to-day.

**The Hamilton Incubator Co., Ltd., HAMILTON, ONTARIO.**



THE  
**LONDON**

has always been a good engine.

Our customers were satisfied with them as they were,

but

In our new plant we are able to build them still better. Why not buy the best.

Write for catalogue 18G.

**London Gas Power Co. (Limited)**  
London, Canada.

**Make your Home Attractive**

The R-K Lighting System will make your home attractive, lively, cheerful and inviting. Beautiful fixtures for the different rooms give you pure white brilliant light superior to gas or electricity at one-half the cost. Can be installed anywhere, in your residence, church, store, etc. Easy to operate—fully guaranteed. Write our nearest office for Booklet C.  
**RICE-KNIGHT LIMITED**  
Toronto or Winnipeg

**For Sale or Exchange**

I will sell or exchange for Clyde or Hackney mares in foal, both the imp. Clydesdale stallion, Bessborough (12480), 8 years old, proven a foal getter and a stock horse, and the Hackney stallion, Anticipator (8351). I guarantee both these stallions to be sure foal getters. Write or phone for pedigrees.

**Chas. Osier, Cairo, Ont.**

**POULTRY AND EGGS**

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

**CHOICE** Barred Rock Cockerels for sale, from one to five dollars. Nelson Smith, Jerseyville, Ontario.

**EXCLUSIVE** breeder of pure Barred Rocks. High-class stock for sale at reasonable prices. Leslie Kerns, Freeman, Ontario.

**FOR SALE**—Cocks and Cockerels, R.-O. Rhode Island Reds, Buff Orpingtons, S.-L. Wyandottes, W. Wyandottes, R.-C. Brown Leghorns, S.-O. White Leghorns. Prices, \$1.50 to \$5.00. Also a few choice Leghorn Pullets. W. H. Furber, Dugannon Poultry-yards, Cobourg.

**FOR SALE**—Snow-white Leghorns, cockerels and pullets, highest-scoring quality, single-combed. Robt. Hughes, Ideal Poultry Yards, Collingwood, Ontario.

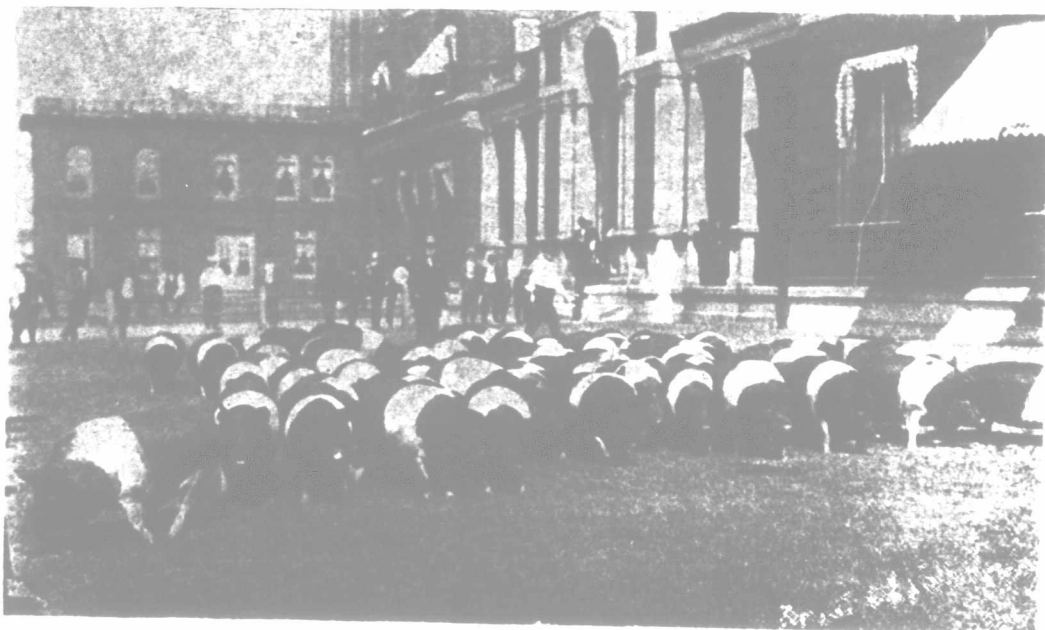
**FEATHERS WANTED**—We buy Goose, Duck, Chicken, and Turkey Feathers; highest prices paid. Write for price-list. The Imperial Waste & Metal Co., Queen St., Montreal.

**FOR SALE**—Bronze Turkeys, won first, second toms; first, third hens, London Show. Also choice Partridge Wyandottes. R. G. Rose, Glanworth, 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.



Champion Carload at Interstate Fair, South St. Joseph, Missouri, 1908.

**A. O'NEIL & SON,**

Stations: DENFIELD, G. T. R.; LUCAN, G. T. R.; LONDON, C. P. R., 12 miles.

## Special Sale of Pure-bred HAMPSHIRE HOGS

75 Head 75

We are offering a special sale of Hampshires from our herd, limited to Feb. 21st, 1911. 25 head of bred Gilts and young sows, 15 head of sows, imported and Canadian-bred, carrying second and third litters, and have proved to be good mothers. 40 head from 6 weeks to 2½ months old. A few male pigs left yet, large enough for breeding. Pairs and trios furnished, no kin. The above are imported, and mostly bred from large, matured imported stock, including our Toronto and London winners, 1910.

The foundation of our herd are all recorded in Canadian National Records at Ottawa. A certificate of registry and transfer will be furnished free to each purchaser, including one year's subscription to Hampshire Advocate. We have shipped our stock all over the Dominion, from British Columbia to Prince Edward Island, C. O. D., subject to inspection.

Write to-day for list of prices.

**Birr, Ont., Can., Middlesex Co.**

### Poultry Fencing that is Stronger than Seems Necessary

We make our poultry fence close enough to turn small fowl—then we make it extra strong, so it will last for years and keep the cattle out. The heavy, hard steel top and bottom wires hold it taut and prevent it from sagging.

### PEERLESS POULTRY FENCE SAVES EXPENSE

It is well galvanized so as to protect it from rust. It makes such a firm, upstanding fence that it requires less than half the posts needed for the ordinary poultry fence, and that means a big saving to you. Write for particulars.

We make farm and ornamental fences and gates of exceptional quality.

**The Banwell Hoxie Wire Fence Co., Ltd.**  
Dept. B Winnipeg, Man. Hamilton, Ont.

## DISPERSION SALE OF 40 Shorthorn Cattle 40 THURSDAY, FEBRUARY 2ND, 1911.



Comprising cows, heifers and bulls. Cows have calves at foot or are forward in calf to imported Queen's Counsellor 64218. This bull, together with a choice lot of young bulls, is included in the sale. There are also a grand lot of young heifers, sired by imported Queen's Counsellor.

For other information see catalogues, for which apply to:

**FRANK R. SHORE, WHITE OAK, ONTARIO.**

AUCTIONEER: CAPT. T. E. ROBSON.

### AUCTION SALE IN THE TOWNSHIP OF ERIN Pure-bred Angus Cattle and Glydesdale Horses



The undersigned has received instructions from J. W. Burt to sell by public auction, at "Avalon" Farm, lot 12, com. 7, Township of Erin, three miles from A. P. R. station, Erin, on **TUESDAY, JANUARY 24, 1911** at one o'clock sharp, the following: 1 head of Angus cattle, consisting of the stock bull "Kestrel" of 10 years old, 2 yearling bulls, 1 full grown and 1 yearling, also 1 feeding steer. Horses: The well known "Avalon" pair, "Star of Roses," imp.; pair of matched bay geldings, 3 and 4 years old, pair brown geldings, 3 and 4 years old. Terms: Sums of \$10 and under cash; over that amount 10 months; over that will be given on furnishing approved joint notes. Five per cent. cash on account for cash.

**Geo. McAllister, Auctioneer.** J. W. BURT, Prop., Corningsby P. O., Ont.

When Writing Advertisers, Please Mention "The Farmer's Advocate"

quisitor) lines. She was evidently aggrieved because father had not confided to her the precise date of our homecoming. She wished to have been present to welcome us, after having vigorously upset the house from garret to cellar in the historic name of house-cleaning; and this topic furnished the opening text for the discourse.

"I'm sorry, very sorry, Barbara, that the fall cleaning was not done before you came, and with your father here alone for two months, everything must be in a shocking condition. When do you begin? I suppose you intend to have it over before Thanksgiving?"

"I'm not going to begin, Aunt Lot."

"Are you putting it off until spring? I think that's a risk."

"No, forever. Every room has its day for weekly cleaning, and there will be no need for an upset, as if we were fumigating after a contagious disease."

"Humph! and be sweeping and dusting all the time! You'll never manage it in the world, but I suppose that is one of your new English ideas."

"No, simply common sense, like taking a bath every morning, though I believe that there may still be people who prefer to save up and take a semi-annual soak in pearline, the execution of which makes them weak for several days afterward."

At this she shifted the subject.

"I must say, Barbara, that I was surprised to hear that you were coming home to live. You know I've always held the opinion that there was no house large enough for two families. My brother, though easy-going in general, is most set in some things, and from what I have seen of your husband, I should say that he was not only set, but high-spirited."

"She had endeavored to cross swords with Evan at the time of our marriage, and had never forgiven him for declining to argue."

"Two families in one house? Surely, Aunt Lot, you do not practice what you preach; for you have gone into a house with another family, and a large one, at that. This, however, is really one household—a big house, the dearest father in the world, with a son and daughter to keep him young."

"Then, too," she continued, as if she had not heard, "you are beginning most extravagantly, three women in the house, and two men, out side. In the old times I only had one woman, and your father, and the notion of having the office of a husband upon your shoulders, and your own mind in the way of a husband, is a new idea. I have never seen a woman with a husband's duties upon her shoulders, and I don't think I ever shall."

Write for FREE Books



## LEARN TO MOUNT BIRDS

We guarantee to teach you by mail with complete success how to mount Birds, Animals, Fish, Game Heads, Taxidermy for dogs, robes, etc. Easy, fascinating work for men, women and boys. Quickly learned, by our exclusive system, teaching only the latest and best methods. Make beautiful presents for your friends and beautifully decorate your own home, or make big money mounting for others.

Sportsmen and Naturalists everywhere should know this wonderful art. You learn in a few lessons how to mount all your own trophies and specimens as well as a professional. Good taxidermists are scarce and in great demand. Many of our graduates are making \$12.00 to \$20.00 a week in their spare time or \$2,000 a year and more as professionals. You can do as well.

FREE Elegant new catalog and Taxidermy Magazine sent absolutely free. Write today.

NORTHWESTERN SCHOOL OF TAXIDERMISTRY  
4031 Elwood Building . . . . . OMAHA, NEB.

## Cowan's "Perfection" Cocoa

Let the children drink all they want. Healthful, nutritious, delightful.

Absolutely pure. That rich chocolate flavor. Very economical.

The Cowan Co. Limited, Toronto. 88

doubt, as he said, people did some things go and wait round just out of curiosity to see who was there, and somehow Miss Bache found out that Mrs. Dennison had liver trouble that spotted her complexion, and mentioned it in sewing society, and her own husband's sister, not knowing she was ailing, felt grieved to hear it from a stranger.

(To be continued.)

**BELLEVILLE HOLSTEIN CLUB.**  
On January 12th, 1911, a meeting of Holstein breeders of the Belleville, Ontario district was held in Belleville, some 150 men being present, at which was organized "The Belleville District Holstein Breeders' Club," the following officers being elected: President, A. E. Foster, Bloomfield; Vice-President, G. A. Burdick, Newcom; Secretary-Treasurer, J. B. Malley, Belleville; Directors, J. A. Cassin, G. W. Anderson, E. Terrill, Mrs. Wm. B. R. Levens. The annual subscription fee was fixed at \$1, and it was decided that anyone having one or more female registered pure-bred Holsteins should be eligible for membership.

# HA! HA! HA!

"Well, I'm blest! So this is one of those so-called metal roofing guarantees I've read about," laughs the Wise Man of Metal Town.

"It certainly is a good joke, for it doesn't really guarantee anything to anybody, and isn't legally binding. Ask your own lawyer and you'll find I'm right."

"Stripped of all its exceptions and provisions I don't see how anyone could be serious about it."

"I go by what I know has been done, not by what is promised. For instance, I know that 'Eastlake' Metallic shingles have been in use for twenty-five years right here in Toronto, where they're made, and that those same shingles are in perfect condition now."

"Just listen here a minute. I'm getting serious now. The Metallic Roofing Company began to make metallic shingles years before anyone else in Canada. They were made right when they were first made. The Metallic Roofing Company have been continually making new designs for ceilings and walls, fronts and cornices, but as for shingles they have never seen an improvement on the 'Eastlake' steel shingles which have been made, laid and proven for twenty-five years."

"I've noticed that most metal shingle manufacturers change their pattern so frequently that I'm led to believe they, themselves, haven't much confidence in their own goods. Yes, they even change the name to cover up some weakness in a previous product."

## "TWO OTHER PERSONS' SAY-SO'S"

The Metallic Roofing Co., Limited,  
Toronto,  
Simcoe, Ont., April 9th, 1908.  
Dear Sirs:—We have handled your 'Eastlake' Shingles for nearly a quarter of a century. They have been on the Court House, Free Library and other public buildings in this town for 18 years. We have used very large quantities during the past 25 years, and they have always given first-class satisfaction, and have never required any repairs.  
(Signed) MADDEN BROS.,  
Tinmith and Hardware Merchants.

The Metallic Roofing Co., Limited,  
Toronto,  
Lucknow, Ont., April 9th, 1908.  
Dear Sirs:—"I take great pleasure in testifying to the good qualities of your 'Eastlake' Shingles. We put your painted shingles on our Town Hall here in 1881, 23 years ago, and although they have only been painted twice since that time they are in good condition yet. I consider the lock on the 'Eastlake' the very best, and believe that a roof covered with the galvanized 'Eastlake' will last for ever."  
(Signed) THOS. LAWRENCE,  
Hardware Merchant.



"I'm prejudiced, you say? Of course I'm prejudiced, but it's a prejudice founded on years of active use of the metallic goods made by The Metallic Roofing Co. It's an old man's prejudice based on a long experience."

"Write for booklet which tells more about 'Eastlake' Metallic Shingles. They are sure proof against fire, lightning, rust or weather in all climates. They are the easiest and quickest to put in place and the most durable when laid. If you send the measurement of any roof an accurate estimate of cost will be sent free."

—The Philosopher of Metal Town.

## The Metallic Roofing Co.

Limited

TORONTO and WINNIPEG

Agents wanted in some sections. Write for details, mentioning this paper.

### QUESTIONS AND ANSWERS.

#### Miscellaneous.

##### PEDIGREE WITHHELD.

1. A bought a sow from B, and B promised a pedigree when shipped. A has written to B several times about it, and B promises to send it soon, but does not send it. What action can A take to get it?

2. If B can not produce a pedigree, can A return the sow to B?

##### SUBSCRIBER.

Ans.—1. He can sue B in the Division Court for damages for the breach of contract.

2. We think not. His remedy would seem to be by way of suit as mentioned.

#### Veterinary.

##### CHEST FOUNDER.

What is chest founder in a horse? Give symptoms and treatment. J. P.

Ans.—There is no such disease. When a horse is lame in front for a considerable time, from any cause, the muscles of the breast atrophy or become smaller, and some people are pleased to call it "chest founder."

##### GROWTH ON CORONET.

1. Colt has a hard lump above the hoof. It extends about half way around the limb. He walks on his toe.

2. Will it be wise to blister?  
3. How long will it take to remove and cure it?

4. If left alone, how long will it be before the lump disappears? C. S.

Ans.—1. The symptoms indicate ringbone.

2. It would be better to get your veterinarian to fire and blister it.

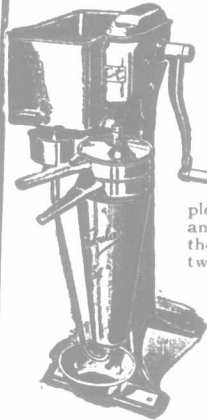
3. It is not possible to say. It is not probable the lump can be removed. In fact, if it be a ringbone, it cannot be removed, but probably will not show so prominently when the animal attains full growth. In cases of this kind, if we succeed in curing the lameness we consider we have effected a cure, and do not expect to remove the growth of bone. In some cases the lameness cannot be removed except by an operation, called neurotomy, which consists in removing the nerve supply to the foot.

4. It is not probable it will ever disappear. V.

##### THE SPICE OF LIFE.

During the civil war, a captain of a company which had sixty men in its ranks, none of whom was as energetic as the officer thought he should be, hit upon a plan which he believed would cure their habits of laziness. One morning after roll-call, the captain, addressing his command, said: "I have a nice, easy job for the laziest man in the company. Will the laziest man step to the front? Instantly 59 men each took a step forward. "Why didn't you step to the front?" inquired the commander of the one man who did not come. "I was too lazy," replied the soldier.

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Do not fail to see the world famous Dairy Tubular before you buy a cream separator.

Remember! Dairy Tubulars are later than and different from other models or other contraptions—absolutely simple—wear a lifetime—guaranteed forever. Productive twice the skimming force—skim twice as clean. The average life of (so-called) cheap machines is one year. Cheaper to buy a wear-a-lifetime Tubular, than to spend hundreds of dollars for inferior machines which wear out quickly and lose their cost in wasted cream time after time.

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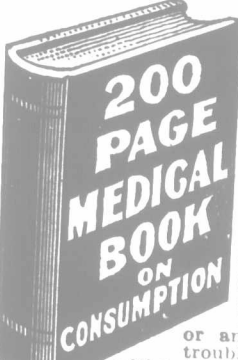
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400 Maple Logs, 10 1/2 ft. long, 22 in. and up diameter small end; 500 Rock Maple Logs, 15-30 ft. long, 12 in. and up top end; 2 carloads of Walnut Logs 15 in. and up diameter small end.

**BRADLEY CO., HAMILTON, ONTARIO.**

**QUESTIONS AND ANSWERS. Veterinary.**

**ITCHY LEGS.**

Mare has itchy legs. She rubs them until they crack and bleed. W. D. E.

Ans.—This is a common trouble in hairy-legged horses, especially those with bone of a round or fleshy nature, and is very hard to treat. Give her a purgative of 8 to 10 drams aloes and 2 drams ginger. Follow up with 1 1/2 oz. Fowler's solution of arsenic twice daily for a week. Make a solution of corrosive sublimate, 30 grains to a quart of water. Heat to about 100 degrees Fahr., and rub well into the skin of the affected parts twice daily. V.

**SICK LAMB—FATALITY IN EWE**

1. Ten-months-old lamb became sick two months ago. It became dumpy and refused food. I treated for worms with gasoline. It got better for a while, and then went off its feed again. I gave gasoline again, and increased the dose gradually to 2 tablespoonfuls. About the fifth dose it seemed to go crazy, then got a little better, but still would not eat. Then it ate a little for 9 days. During this time I gave it a tablespoonful of turpentine in milk every night for 5 nights; then a half cupful of linseed oil. Next night I gave turpentine, and the next night linseed oil; then 4 doses of turpentine. It then went entirely off its food. Next day chewed its cud and ate a little. It stands a good deal; when walking staggers from side to side.

2. Two-year-old ewe took sick with violent coughing. Would cough until she fell, and died in three days. C. C.

Ans.—1. You have given turpentine until its narcotic actions are established. For worms the dose should not be repeated oftener than every ten days. I do not think the lamb has worms. I think it is digestive trouble. Mix equal parts of sulphate of iron, gentian, ginger and nux vomica, and give a teaspoonful 3 times daily. If it will not eat, give a little boiled flaxseed as a drench. When its appetite returns, feed often in small quantities.

2. The symptoms indicate choking. The passage of a small probang might have given relief. V.

**WINTERING IDLE HORSES—LYMPHANGITIS.**

1. My horses have little to do in the winter time. I have oats, wheat chaff, straw and turnips, but little hay. How can I winter them so as to keep their blood right, and keep them and other stock free from lice?

2. Some of my horses are subject to lymphangitis. Two of them have large legs now. How can I prevent the disease? What is the proper treatment for an attack?

3. Would it not be wise to bleed the affected leg and thereby remove the bad blood and cure the trouble? L. W.

Ans.—1. You need not worry about the blood. Horses should not be given drugs unless sick. The idea that horses require medicines to prevent ordinary diseases and keep the "blood right" is all wrong. A good way to feed under your conditions would be to get the oats rolled. Give a gallon of rolled oats and some straw in the morning; when eaten, turn horses out in a paddock for exercise. Pulp a few turnips, and mix about a gallon of them and a gallon of rolled oats for each horse, and mix with wheat chaff for the noon feed. Turn out again after noon, and feed rolled oats and chaff with straw at night. To keep free from lice, whitewash the stables, and avoid introducing lousy animals into the stable. Lice will not develop spontaneously.

2. Feeding horses and allowing daily exercise as above should prevent lymphangitis. Those whose legs are chronically enlarged as the result of repeated attacks, will always have big legs. To treat an attack, give a purgative, followed by 4 drams nitrate of potash 3 times daily for 3 days. Bathe the leg well 3 times daily with hot water, and after bathing rub well with a weak camphorated liniment. As soon as lameness disappears, give regular exercise.

3. No. The trouble is not due to "bad blood," and if it were you could not remove it in this way. V.

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**THE MAGNET CREAM SEPARATOR**

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Use has shown that the worm gear drive soon wears, the bowl wobbles, and then considerable butter-fat goes into the skin milk at each separation. The square gear does NOT WEAR, the MAGNET skims as closely after two years' use as the first day.

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SQUARE GEAR DRIVE is used; the only drive approved of for a FAST-RUNNING machine like a cream separator.

The SHAPE of the MAGNET bowl is DIFFERENT from others, being LONGER, enabling the insertion of the famous ONE-PIECE SKIMMER, so constructed as to take out all the butter-fat but a trace, at the same time DRAWS OUT ALL DIRT AND FOREIGN MATTER, and holds the same to be washed off. This skimmer delivers PURE CREAM.

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The Brake (MAGNET PATENT) circles the bowl, stops the machine in eight seconds; does not injure it. (MAGNET PATENT). All other separator bowls are run on one end, of balance of which leaves butter-fat in the skin milk.

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Having had such good success in the past, I have again decided to offer direct to the farmers of Canada, in quantities to suit purchasers, at reasonable prices: Imp. Am. Banner, Regenerated Banner and Dew Drop. These oats have all been grown and handled by myself, are pure and clean, and a splendid sample. Further particulars, samples and prices on application.

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## QUESTIONS AND ANSWERS. Miscellaneous.

### CAKED UDDER.

What is the cause of a heifer having a caked udder? Is it through the kind of food she eats, or what is the direct cause?

F. J.

Ans.—It is probably due to liberal feeding, but as a rule is not a dangerous condition. Milking out frequently, massaging the udder with the hands, and rubbing in well goose oil, or lard, and spirits of turpentine mixed, usually softens the udder and the caking gradually disappears. If a lump still remains, iodine ointment, applied after milking, will probably reduce it. If the ointment seems to blister, apply lard or sweet oil after.

### CLOVER CROP.

I rented my farm to my neighbor for one year, from first April to first April. I bought one field of hay from him afterwards and took it off myself. Then I went West for the harvest. Half this field was clover, first cut. It grew up another crop. My neighbor cut this again and took it home when I was West. Had he a right to the second crop, or should he have pastured it, or fed it on my place?

A SUBSCRIBER, Ontario.

Ans.—Assuming that there was nothing expressed in the lease that would affect the matter in question, we would say that while your tenant might, perhaps, more fairly, have used the second crop for pasture or feeding otherwise on your farm as suggested, we do not see that he has rendered himself liable to any legal action on your part for taking the crop off as stated.

### WINDGALLS.

1. Could you tell me a cure for windgalls on a horse's leg? I have tried bandaging. Would not like to use anything that would leave a scar.

2. Same horse has been kicked on the leg some time ago, and left a small callous lump on the skin or flesh. Could you tell me what would remove it?

3. Colt has worms.

A SUBSCRIBER.

Ans.—1. Blister carefully with iodine liniment, consisting of one dram of iodine crystals to sixteen ounces water, and repeat two weeks later.

2. The above liniment, carefully used in small quantity and repeatedly, would be as likely as any treatment to remove the enlargement.

3. Take 4 drams each of sulphate of copper, sulphate of iron, tartar emetic and calomel, mix and make into 24 powders, give a powder every night and morning, and after the last has been given, give six ounces raw linseed oil.

A man descended from an excursion train and was wearily making his way to the street car, followed by his wife and fourteen children, when a policeman touched him on the shoulder and said:

"Come along wid me."

"What for?"

"Blamed if I know; but when ye're locked up, I'll go back and find out why that crowd was following ye."

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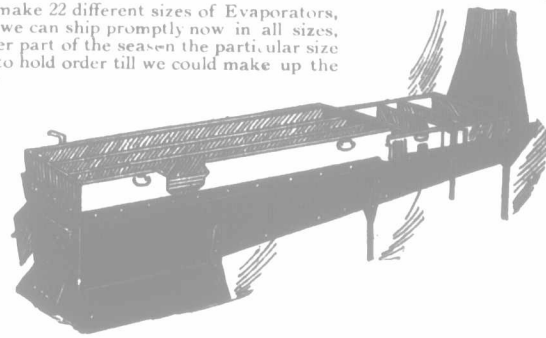
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## DISPERSION SALE OF SHORTHORNS

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Wed., Feb'y 1, 1911



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Wm. Linton, Proprietor, Aurora, Ont.

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Wood shingles, thinly sawn (not split) from trashy timber, are no longer a good roofing investment. For their life is brief, and their service never roof-worthy. Their furred-up surface collects dust and moisture from the start, and the shingles warp, crack, rot—and LEAK. Preston Shingles, with their heavy smooth galvanizing, are many times as cheap, in the long run, as choicest wood shingles, which are scarce and costly.

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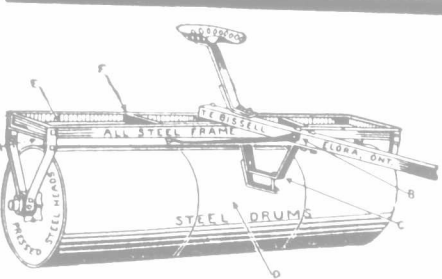
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**No. 81 Planet Jr. Horse-Hoe, Cultivator and Furrower** is a great improvement for the farmer and gardener. It is a great time saver and does the work of two men.

**No. 14 Planet Jr. Double-Wheel Disc-Hoe, Cultivator and Plow** has three adjustable discs and a double wheel. It is a great time saver and does the work of two men.

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WHEN WRITING ADVERTISERS MENTION THE FARMER'S ADVOCATE

**GOSSIP.**

Part II. of Volume 56, of the Shorthorn Herdbook of Great Britain and Ireland (Coates's Herdbook), has been received at this office, thanks to the courtesy of the Secretary and Editor.

Gluten feed for cattle is specially suitable for dairy herds, being rich in protein and fat, easily digested, and an excellent milk producer. The Brantford Starch Works, at Brantford, Ont., in their advertisement in this paper give price and particulars.

Seed oats of approved varieties are advertised for sale, on another page in this issue, by A. Forster, Markham, Ont., who has grown the seed, and declares it clean, pure, and of splendid sample. Further particulars, with sample and prices, on application.

**BRYDONES SHORTHORN SALE.**

Attention is again called to the announcement of the dispersion sale of the excellently-bred Shorthorn herd of J. Brydone, of Milverton, Ont., to take place on Tuesday, January 24th. Seldom indeed has an equally well-bred herd been offered at public sale in Canada. A number of the cows are imported, and all but one are either imported or directly descended from imported stock of the most desirable Scotch families, most of the younger ones being sired by the Durhie-bred bull, Sittyton Victor (imp.), whose pedigree traces to such noted sires as William of Orange, Roan Gauntlet and Champion of England. Most of the cows have calves at foot or are in calf to the Dryden-bred bull, Contender, a son of Scottish Prince (imp.), and whose dam was by the great breeding bull, Prince Gloster, a sire of champions. Milverton is a station on the Stratford to Owen Sound branch of the G. T. R., and on the Guelph to Goderich branch of the C. P. R., and is easily accessible from all directions. Morning trains will be met at Milverton.

**HENS.**

There is room for improvement in hens. The hen does not keep up with the race of her sex in the matter of progress. She is still the slave and follower of Chantecler. She runs after him—a thing no lady should do—and her sister hen pecks her till she dents her back-comb—and all for the love of a rooster.

We were howling at a fast clip through the beautiful lanes of Devon—

"Did you ever run over anybody?" we asked the chauffeur.

"Only a hen or two," he replied in laconic fashion. "You see, hens, like women, think they know it all. If the hen was a bachelor girl, she'd be a book-keeper, for she has a wonderful mathematic mind. She figures to a dot how close she can come to a horse-drawn trap, and she'll roll in the dust nearly to the horse's feet. She always escapes by the length of a horse. But, out in the country, the hen hasn't learned about the auto yet—See that one?"—a hen made a "lep" like an Irish hunter into the hedge as we sheared past—"We nearly caught her. Hens don't understand the motors, for they are always thinking of the horse. They're just victims to old foggy notions like a lot of country people, who object to machines."

They are certainly behind the times. We must educate our hens. They may not demand the vote, or cackle "one wife to one man"—but they should be taught that autos are no respectors of hens—or other persons. However, Chantecler sometimes gets caught—and you should hear the old hens chuckle! Serve him right, the old Mormon—Kit, in January Canada Monthly.

**REFORMED TOO SOON.**

An eminent speaker at the Congregationalist meeting in the First Congregational Church, East Orange, was telling the other day of a Westerner's opinion of the East.

"This man," said the speaker, "was a prominent coachman, and had occasion to visit New York, where he remained for a few days. In writing of his experiences to his wife in the West, he said: 'New York is a great city, but I do wish I had come here before I was converted.'"

QUESTIONS AND ANSWERS. Miscellaneous.

MARE COUGHS.

My four-year-old mare has had a cough for some little time. I have been giving her oil of tar each night for a week, but it does no good. What should I give her to cure the cough? I'm afraid it will end in heaves if I don't get it cured.

SUBSCRIBER.

Ans.—Take 3 ozs. pulverized gum opium, 1 oz. powdered digitalis, 4 drams arsenic acid, 4 ozs. powdered liquorice root. Mix and make into 24 powders. Give a powder every night in damp food. Repeat the prescription if necessary.

SMALL-SEEDED FALSE FLAX.

Please let me know the name of enclosed weed. Is it dangerous? Also other information will be thankfully received.

M. M.

Ans.—The sample sent appears to be that of small-seeded false flax, resembling common false flax, but is more slender and with smaller pods. The pest does not long give serious trouble where a short rotation of crops is practiced, and where thorough cultivation and seeding to grasses is done with spring grain instead of fall wheat. The seeds often occur in alsike clover and timothy seeds. The first cutting of red clover containing the weed should be taken only. The first crop of alsike should not be taken for seeds, unless the weeds have been hand-pulled and destroyed.

MANGE IN CATTLE.

Please give a cure for mange in cattle. We have a valuable young bull in good condition and thrifty, which has symptoms of mange as was described in your paper some time ago. How should he be treated to cure him? Is it contagious?

W. D. B.

Ans.—Mange is a parasitic disease, and is very contagious. Treatment consists in removal of the scabs by warm soap-suds, and, if necessary, a brush, and a thorough application of tobacco—1½ ounces, and water 2 pints, prepared by boiling. It is more probable that your bull has eczema, which is less serious and more easily cured. For this wash thoroughly with warm soap suds, using a brush if necessary, then blanket and dress once daily with a warm solution of corrosive sublimate, 25 grains to a quart of water.

GOSSIP.

Between cups, plates and cash prizes at the leading English shows this season, J. J. Cridlan's great champion Aberdeen Angus heifer, Clasp II., credited her worthy breeder and exhibitor with trophies to the value of over \$1,000.

Live-stock ear-labels cost but little, and are a great convenience in keeping records of the breeding and ownership of animals. Name of owner and number of animal being stamped on each label, and the label lasts the lifetime of the animal. F. G. James, Rowmanville, has been making and supplying these labels for many years and with complete satisfaction to users. See his advertisement in this paper, and write for his circular giving prices and particulars.

A very commendable little booklet of 68 pages, called "The Golden Stream," has been recently issued by the International Harvester Company of America. This booklet covers a multitude of vital facts relative to the plain, ordinary, everyday cow, in a very interesting manner. Such up-to-date topics as "The Dual-purpose Cow," "Bovine Tuberculosis," "How to Make a Babcock Test," "Rations for Dairy Cows," "The Feeding Value of Silage," and "Advantages of Dairy Farming," etc., are discussed. In general, the purpose of the book is to impress the farmer with the proper relation of the cow to our modern civilization as the source of a golden stream of wealth. It will be greatly appreciated, especially by farmers and dairymen. A copy of the booklet may be obtained by writing the publisher for any one of the various I. H. Co. branch houses.

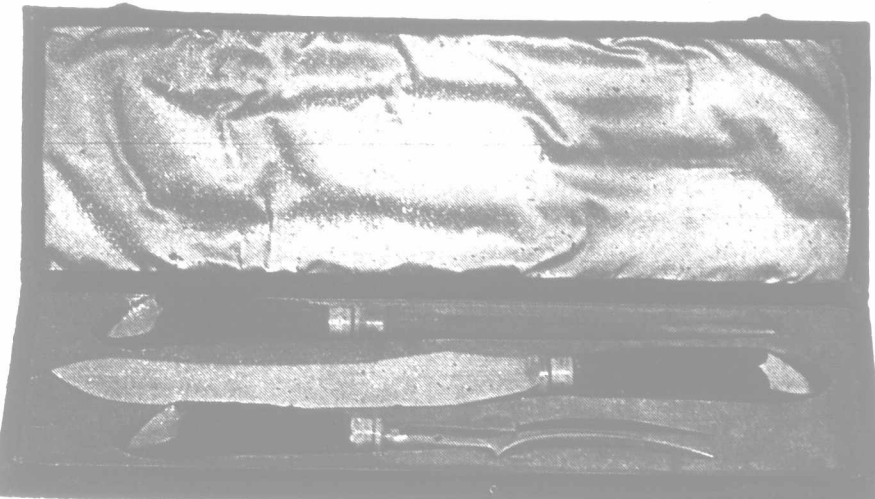
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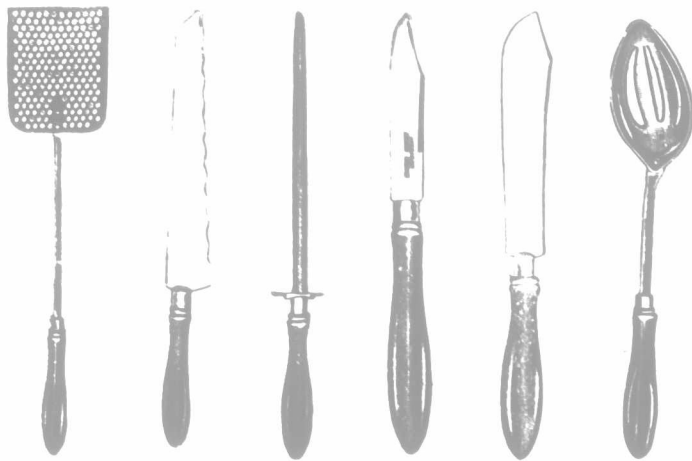
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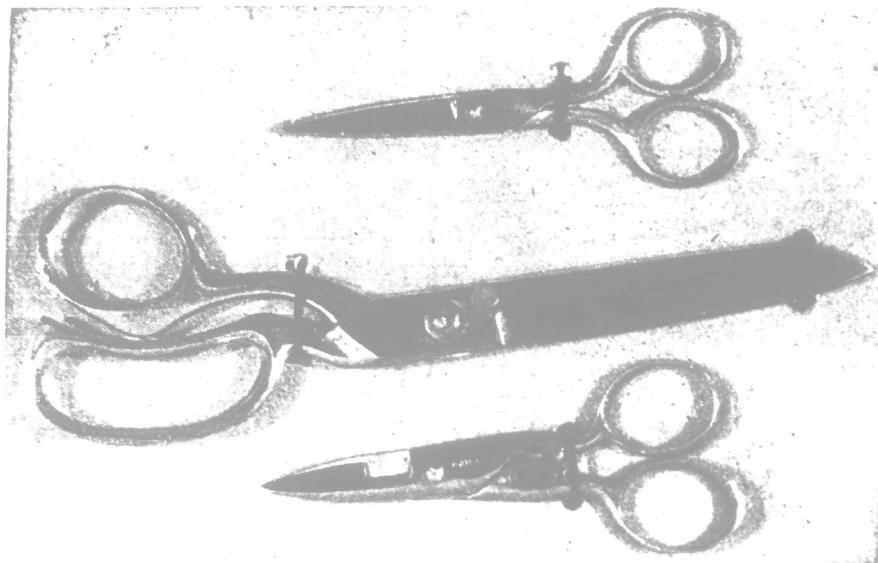
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 Splint, Side Bone or Bone Spavin.  
 No blister, no hair gone. Horse can be  
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 our Agents offer.



**MAY MFG. CO.,**  
**ELORA, ONTARIO.**

**QUESTIONS AND ANSWERS.**  
 Veterinary.

**CALF QUIDS ITS CUD.**  
 Calf 3 months old, fed on skimmed  
 milk and clover hay, does not swallow  
 its cud. It chews it for a time, and  
 then allows it to fall out of its mouth,  
 and it has a very bad odor. R. G.

Ans.—This is probably due to fermenta-  
 tion of the food in the stomach. This  
 is indicated by the odor. Add to the  
 milk fed to the calf  $\frac{1}{4}$  of its bulk of  
 lime water, and see that the hay eaten  
 is of first-class quality. V.

**MISCELLANEOUS.**

1. After weaning her colt, my mare  
 ceased eating and became gaunt.  
 2. Scaly scabs appear around cow's  
 eyes. What is it, and what the cure?  
 3. What is the best way to get the old  
 hair off a colt that will not allow a  
 person to groom him? J. I. C.

Ans.—1. Have her teeth examined, and,  
 if necessary, dressed. Give her a table-  
 spoonful of the following 3 times daily,  
 viz.: Equal parts sulphate of iron, gen-  
 tian, ginger and nux vomica.

2. This is ringworm. It is due to a  
 parasite, and is very contagious. Isolate  
 the diseased cattle, moisten the scales  
 with sweet oil, and then dress the spots  
 daily with tincture of iodine until cured.  
 Be careful not to carry the contagion  
 from the diseased to the healthy cattle  
 or horses.

3. There is not likely to be unshed old  
 hair at this season. The colt must be  
 made submit to grooming. Be gentle.  
 Use brush only for a time, employing  
 currycomb only to clean the brush. In  
 most cases, the application of a twitch  
 to upper lip or ear, or both, will be all  
 that is necessary. If this will not do,  
 tie one hind foot forward by a strap  
 around pastern between fore legs and  
 around neck. V.

**Miscellaneous.**

**SILAGE FOR IN-FOAL MARES.**

1. Is silage good for mares with foal?  
 2. Would it be likely to make them  
 lose their colts? D. C. L.

Ans.—1. and 2. Small quantities of  
 silage should not be injurious to mares  
 in foal. We see no reason to believe it  
 would have any tendency to abortion.

**HELP WANTED.**

As I will need some hired help in the  
 spring, I would like to get an Old  
 Country man that is accustomed to gen-  
 eral farm work. Can you instruct me  
 through "The Farmer's Advocate," how  
 to apply, or whom to write to? I would  
 prefer a single man, of good moral  
 habits. S. M.

Ans.—Write Donald Sutherland, Direc-  
 tor of Colonization, Parliament Buildings,  
 Toronto.

**SILAGE FOR HORSES.**

1. Do you consider silage a good thing  
 for horses?  
 2. How much would you advise feed-  
 ing per day?  
 3. Some say it injures their teeth. Is  
 there anything in it? SUBSCRIBER.

Ans.—1. Not particularly, though small  
 quantities may be used.

2. At Pennsylvania State Experiment  
 Station they are feeding quite liberally.  
 Usually moderate quantities are all a  
 horse will take; the animal will gener-  
 ally regulate the amount.

3. No.

**ONTARIO STATUTES.**

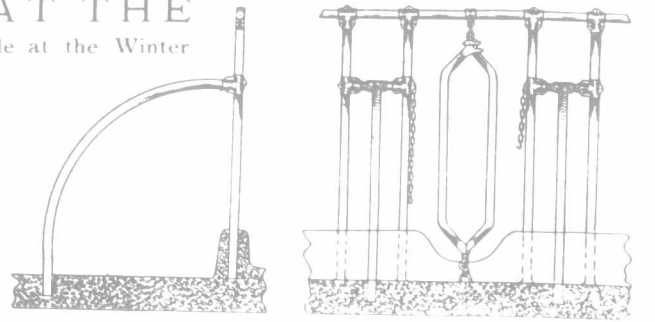
Would you please state where I could  
 obtain the Revised Statutes of Ontario?  
 I should like to have a copy of the In-  
 terpretation Act. Please state whether  
 there is any charge for same. SUBSCRIBER.

Ans.—The latest R. S. O. was printed  
 in 1897. The new edition will be ready,  
 we are informed, in 1912. The ses-  
 sional statute, 1907, which contains the  
 "Interpretation Act" will be \$1.50. The  
 price of the Revised Statutes of Ontario  
 are \$6.00. Write L. K. Cameron,  
 King's Printer, Toronto.

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 either call at our  
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 our representa-  
 tives will be glad  
 to go into the  
 matter of fixing  
 up your barn, or  
 write direct to:



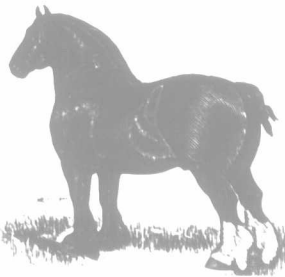
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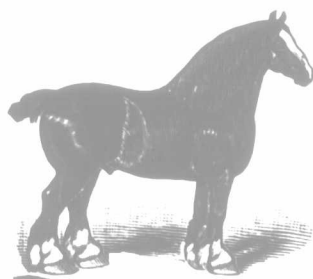


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My 1910 importation, nearly all 2- and 3-year-  
 olds. They are ideal in draft character, with  
 faultless quality of underpinning, every one will  
 make a ton-horse and over, and they represent  
 the best blood of the breed; they will be priced  
 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.

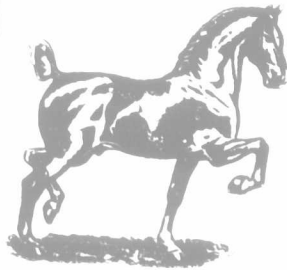
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I have 22 Imported Clydesdale Stallions to select  
 from, of different ages, and from such noted sires  
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 Will meet visitors on the shortest possible notice.

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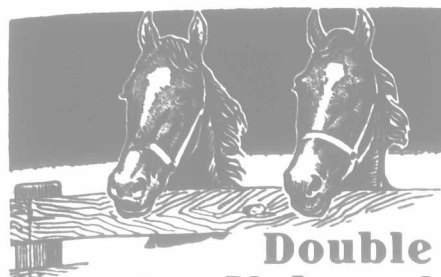
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EXPORTERS OF PEDIGREE LIVE STOCK OF EVERY DESCRIPTION.

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Will sell both sexes; fair prices. Come and see them before buying.  
Drummond Station, **WALTER HALL, Washington, Ont.**

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**INVERNESS SHORTHORNS.**  
I can supply Shorthorns of all ages, with richest Scotch breeding and high-class individuality.  
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ADVOCATE ADVERTISEMENTS PAY.

### QUESTIONS AND ANSWERS. Miscellaneous.

#### HORSES SWEATING IN STABLE

What causes horses to sweat when standing in the stable, the steam rising from them like steam from a teakettle? They are only fed hay and oat chop, 3 quarts to a meal.

S. K.

Ans.—If the animals eat well and appear otherwise in a healthy condition, it would appear as though the chief trouble is probably due to a lack of proper ventilation and a heavy coat. Clipping would overcome it probably, though such is not advisable at this time of year. The ventilation could probably be greatly helped, however.

#### TO CLEAN CHIMNEY — BARLEY FOR COWS.

1. What is a good thing to burn in a furnace to clean out a chimney?  
2. Does the feeding of barley chop to dairy cows have a tendency to dry them?

J. H. M.

Ans.—1. We know of nothing we can recommend. You might try coke, but the best way will probably be to climb up on the roof and clean it.

2. No, though for feeding with an ordinary farm-grown ration of roughage barley is not likely to give quite so satisfactory results in milk production as peas, oats, bran, and some of the concentrated nitrogenous meals, like oil cake, cottonseed meal, gluten meal, and the like.

#### BULL HAS SCURFY SKIN.

I have a two-year-old Shorthorn bull. He is fed 3 pecks turnips morning and night, and 1/2 gallon whole oats at noon; gets all the clover hay he can eat, and is out for an hour every day. He is in good order, but his skin is thick and scurfy. I comb him too, but the scurf will not come away from the hide. What will give him a good, slick skin?

W. J. M.

Ans.—Feeding a pound of oil-cake meal mixed with his oats would probably improve the condition of his skin and hair. Washing him with warm soft water and castile soap, and blanketing him afterwards, would help, but of course it would not be wise to let him out in the cold after washing. If he has lice, or eczema, or itchiness of the skin, he should be washed with a five-per-cent. solution of coal-tar dip, and then blanketed.

#### BALANCED RATIONS FOR COWS

What is a good balanced grain ration to feed milk cows? I am feeding wheat chaff, mixed with good silage, and about 1 bushel of mangels to each cow per day. (I have plenty of oats and barley.) I am feeding 3 quarts of chop a day; it is composed 3 parts of oats to 2 parts of barley.

A. T.

Wentworth Co., Ont.

Ans.—In "The Farmer's Advocate" of January 5th, 1911, page 35, is found practically the same question, and there quite a full answer is given. Without discussing the subject at great length, we would suggest silage, about 30 pounds; roots, about 20 pounds; clover hay, 10 pounds; bran, 2 pounds; oats, 2 to 4 pounds, and oil meal, 1 to 2 pounds, leaving out the barley and replacing it by bran and oil meal. The amount of grain, and especially oil meal, will be regulated largely by the flow of milk.

#### CEMENT FOR STABLE FLOOR.

1. I am putting in a new stable. Will you please tell me how many barrels of cement it will take for the floors? The building is 30 x 60 feet.

2. I was going to run the stables the long way of the building to get more room for horses. Do you think there will be room enough for horse stable, 15 feet wide, 4 feet for feed-room, and 11 feet for cow stable?

3. What would be the best kind of timber to put in for posts for horse stalls?

A. H.

Ans.—1. One barrel of Portland cement will lay about 80 square feet of horse or cow stable floor. For your stable, 30 x 60 feet, it will require 25 barrels of Portland; of rock cement you will require at least one-third more.

2. Your barn is not wide enough to put the rows of cattle and horses lengthwise, and allow sufficient space behind the animals for satisfactory working.

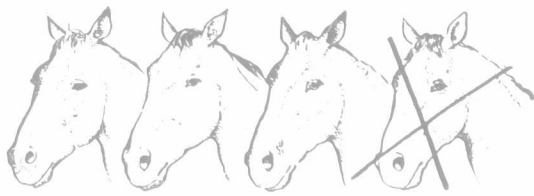
3. Cedar should serve conditions well.

## What the "Crown" Gang Plow does



One man instead of two

Make this test: The first day give your hired man a single-furrow plow and two horses. Take another single-furrow plow and two horses yourself. Then, do one day's plowing. Together, you will plow three acres, under favorable conditions.



Three horses instead of four

Next day, use the "Crown" Gang plow and three horses. You'll find that you can still plow three acres.

The second day the same work has been done with one man instead of two, three horses instead of four, one "Crown" Gang instead of two single-furrow plows. What this saving means to you in dollars and cents you can figure out for yourself. But it is enough to pay for the "Crown" Gang in a few weeks.



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instead of two single furrow Plows



The "Crown" Gang stays right down to its work. It turns the furrows more evenly than a single-furrow plow. The easy-working levers are conveniently located. The wheels have dust-proof boxes with roller-bearings. You should learn more about the "Crown" Gang right away, and about our special orchard gang plows, too. So write for CATALOGUE #40

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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.

Phone connection. **JOHN A. BOAG & SON, Queensville, Ont.**

### IMPORTED CLYDESDALES AND PERCHERONS.

My 1911 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.

**T. D. Elliott, Bolton, Ontario.**

### Imported Clydesdales

My new importation of Clydesdale stallions for size, style, quality and faultless underpinning with Scotland's richest blood. They will be priced right, and on terms to suit. **BARBER BROS., GATINEAU PT., QUEBEC.**

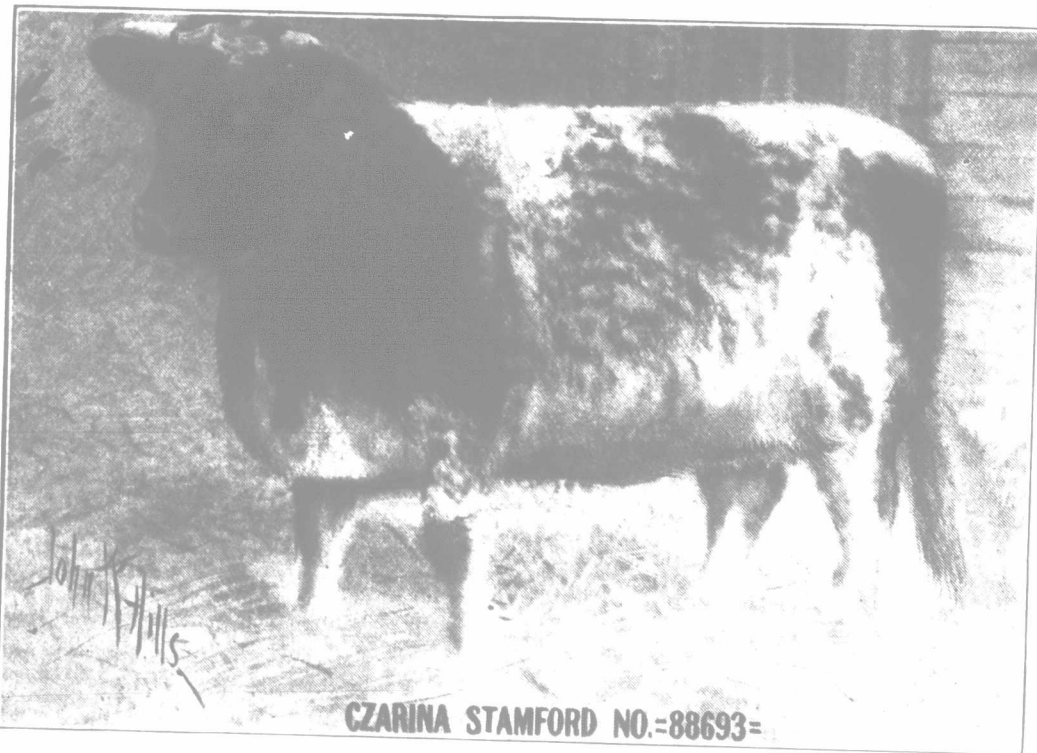
### IMPORTED CLYDESDALES

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 soon. **Ormsby Grange Stock Farm, D. McEACHRAN, ORMSTOWN, P. QUE.**

The Great Canadian Annual Sale of

# SCOTCH SHORTHORNS

Will be held at the UNION STOCK-YARDS, Toronto, Ont., on Wednesday and Thursday, February 8th and 9th, 1911



CZARINA STAMFORD NO.-88693-

The Sir George Drummond Estate will consign the whole herd, consisting of Lavenders, Broadhooks, Missies, real Duchesses, and the descendants of Queen Ideal, as well as the great champion herself. In this lot are splendid show animals of the most select breeding, many of them with calves at foot and in calf again. This herd has won the greater part of the best prizes in Toronto some years within recent date. These winners will nearly all appear in the sale.

W. C. Edwards & Co. will offer the whole of their yearlings, male and female, none of which have been offered for sale; there are twelve heifer and thirteen bulls in the lot. They are good themselves, and they are the brothers and sisters of those that have been sold from this herd in the past, and that have gone into every Province and State in North America, and there made a name for themselves and their breeders, that will be admired wherever cattle are known. This herd was collected without regard to cost, the only instructions being to go and get the best, no matter where or how much. You get the benefit of this at your own price. The herd has been in the very front at Toronto for years.

W. G. Pettit & Sons select and consign ten of their best heifers, bred in the purple, many of them sired by that great show and breeding bull, Prime Favorite, that within recent years landed the Grand Championship at Toronto, while doing the best of service in the herd. The breeding of the heifers is of the best, for there are Butterflies, Roan Ladys, Broadhooks, Urys and others of the best Scotch breeding. Nearly every cow in the herd is imported, and there is no place where more care is taken in mating them with the best.

J. A. Watt will sell some of the best that he has produced in this or any previous year. No herd in America has stood the test of time better than this one. It has furnished many sensational winners, and it has furnished many of the best breeding Shorthorns, both male and female, that this country has ever known. The herd has been shown in the very front for many years, both in Canada and the United States, and they have at the same time been doing good practical work at home, furnishing the kind of bulls and heifers that make an enviable name for the breeder and for the breed.

The Millers' four herds are represented, with young cows and calves at foot, heifers bred or ready to breed, and young bulls. They consist of champions, brothers and sisters of champions, sons and daughters of champions, and others that will be champions. Butterflies, Strathallans, Marr Madges, Lavenders, Augustas, Princess Royals, Glosters, Missies, Claras, Bessies, Strawberrys, Lovelys, Marchionesses and Secrets.

There are not eight herds in the world that have such uniform excellence in the breeding of their cattle. No eight herds could combine in a sale, that have a record of each winning male and female championships in the strongest shows of the country, and each winning again and again the herd prize for the breed. Proving that the best Shorthorns may be found where the best blood can be found. One hundred cattle selected from such herds means something to those that need a sire or a female, or that wish to start a herd, for you can get the benefit of the life's work of all these men, without paying anything like what it is worth.

Write to **ROBERT MILLER, Stouffville, Ontario,** for catalogue, and arrange to be at sale.

## 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.**

## Imported Clyde and Shire Stallions



With 20 years' experience I know the kind of horses wanted in this country. I have both Clyde and Shire stallions up to a ton in weight, with quality, character and breeding unsurpassed. I am never undersold, and give terms to suit. Write your wants.

**T. J. BERRY, Hensall, Ont.**

## CLYDESDALE STALLIONS (IMPORTED and CANADIAN-BRED)

I am offering a number of imported and Canadian-bred Clydesdale stallions, whose breeding is unexcelled and whose size, character, type and quality are essentially Canadian. They will be priced right for quick sale.

**JAMES PATON, Swinton Park P.O. Flesherton Sta., C.P.R.**



**Mount Victoria Stock Farm, Hudson Heights, Quebec.** We have for sale 2 imp. Clydesdale stallions, by Pride of Blacon and British Chief; one imp. Hackney stallion, by Copper King. Prizewinners. Prices right. Long-distance phone.

**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.**



## 3mp. Clydesdale Stallions and Fillies

My 1910 importation of Clyde stallions and fillies are in my stables at Mitchell. They are ideal in draft character, big in size, top quality and have perfect underpinning, and bred from the best blood of the breed. Prices right.

Phone connection.

**Wm. Colquhoun, Mitchell, Ont.**

## GOSSIP.

O. Sorby, Guelph, reports the sale to George Nicol, Waubuno, Lambton Co., Ont., of the imported 3-year-old Clydesdale stallion, Viscount Tynedale [11881] (15455). He is a horse of large size, full of style and quality. His underpinning is of the best hard, flinty bone, that will wear till he dies, with the best of feet and pasterns, and he has superior action, while his pedigree combines the choicest blood of the breed. He is sired by the noted breeding horse, Sir Humphrey. Mr. Nicol's patrons will find it to their advantage to use his promising young stallion.

H. M. Vanderlip, Camsville, Ont., in ordering a change in his advertisement of Shorthorns and Berkshires, reports the recent sale to D. Campbell, Onondaga, Ont., of the young Shorthorn bull, Gold Plate, of the Estelle family. Mr. Campbell is laying the foundation for a young herd, and selected this choice young bull to head his herd. To J. Woodworth, Lynden, Ont., a young heifer, and to Wm. Scott, Lynden, a sow. Mr. Vanderlip writes: We have four extra choice bulls left for sale, sired by Chancellor's Model, also some select sows (bred for spring farrows), from imported sire and dam.

The death is announced of John Wilson, of Castle Park, Huron, who is better known to Shorthorn breeders as the owner of the Pirriemull herd. Although it was established on four acres since it was only twenty-two years ago, since from the late Ames, Chockshank, the Pirriemull herd has taken a very prominent place in Shorthorn breeding, not only in Scotland but throughout Great Britain, and as late as last October a bull calf brought the sum of £1,000, and was regarded as one of the very best substituted during the year. Mr. Wilson was a well known breeder of the finest stock, and his death is a great loss to the breed.

## GEORGE D. FLETCHER, BINKHAM P. O., ONT.

Offers a few choice **Shorthorn Cows** at bargain prices, bred to stock bull, Benachie (imp.) = 69584 =, also Shorthorn heifer calves. Three Clydesdale fillies 1 and 2 years old; and Yorkshire sows ready to breed. **Erin Shipping Station, C. P. R.**

**Oakland Shorthorns** - With 46 head of Scotch 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, Hensall, Ont.**

**Woodholme Shorthorns** are of the richest modern in type and quality. Scotch breeding, 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.**

## OAK LANE FARM

**Clydesdales, Shorthorns and Cotswolds**

Young stock for sale - most fashionably bred.

**GOODFELLOW BROS., MACVILLE P. O., ONT.** Bolton Station, C. P. R.; Caledon East, G. T. R. Local and Long-distance telephone.

## JOHN GARDHOUSE & SONS

Still have for sale a right good lot of young Shorthorns; a few No. 1 Shire stallions and fillies just imported in August; also a choice lot of ram lambs. Weston Station, G. T. R., and C. P. R. Long-distance phone.

**HIGHFIELD, ONTARIO.**

## Shorthorns and Oxford Down Sheep

Trout Creek Winder at head of herd. Young bulls and heifers of richest Scotch breeding. Phone connection.

## Duncan Brown & Sons, Iona, Ontario.

**Clover Dell Shorthorns** For Sale - Young stock of both sexes. Milking strains a specialty. Moderate prices. **L. A. WAKELY, Bolton, Ont., Galton Junction, C.P.R., 1/2 mile of farm.**

## CEDARDALE SHORTHORNS

Imported and home-bred. Imp. Lord Exton heads the herd. For sale are choice young bulls and a few 1 and 2 yr. old cows of some fine breeding and type.

**Dr. I. S. Sprule M.P., Markdale, Ont.**

# The Question of the Day.

## SMUT VS. FORMALDEHYDE

There is no question which the farmer to-day has to face, nor is there any mishap to his crops more to be feared than Grain Smut in its many varied forms, the elimination or control of which very often means the loss or gain to the farmer on his season's crops.

**Protect your crops with Formaldehyde.** Do not waste your time and money by producing a crop of smutty grain.

Ask for "STANDARD" Brand Formaldehyde.

Pamphlets mailed free on request.

### The Standard Chemical Company of Toronto, Limited

Manning Chambers, Toronto, Canada

## 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.



### WILLOWDALE SHORTHORNS

We have for sale some exceptionally good heifers from 6 months to 2 years old. Also a few extra young bulls, Joy of Morning and Broad Scotch blood.

J. H. M. Parker, Willowdale Farm, Lennoxville, Que.

### ELMDALE SHORTHORNS AND SHROPSHIRE

We are offering some choice heifers in calf to that king of sires, Prince Gloster; also one extra nice young bull. High-class Shropshires of both sexes, from imported stock. One yearling Clyde stallion, a show proposition, and some extra nice ponies.

THOS. BAKER & SONS, Solina P. O. Oshawa station, G. T. R.



### Irvine Side Shorthorns

ELORA STATION, G. T. R. & C. P. R. J. WATT & SON, SALEM, ONTARIO.

2 extra good young bulls ready for service; both from an imp. bull, and one of them from an imp. cow. Also 1 good two-year-old registered Clydesdale mare from imp. sire, and out of imp. mare.

### SUNNY SLOPE SHORTHORNS

A. EDWARD MEYER, BOX 378, GUELPH, ONT.

I breed Scotch Shorthorns exclusively. I have some choice young females safe in calf and some good young bulls for sale at prices you can pay. Long-distance phone.



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.

### QUESTIONS AND ANSWERS. Miscellaneous.

#### AN ENGINEER.

Our fire-insurance policy calls for an experienced and competent engineer. Now, would a man without engineer's papers stand good in case of fire?

Ontario.

Ans.—Yes, if reasonably experienced and competent, provided the policy does not explicitly stipulate for a certificated engineer.

#### FEED FOR PREGNANT SOW.

What is the best feed to feed to brood sows before they farrow, so that they will have plenty of milk for the little pigs? We are having trouble along that line now, and would not like it repeated.

GREYBIRD.

Ans.—Ground oats mixed with middlings fed in a slop, to which just before farrowing a little oil-cake meal should be added, and after farrowing skim milk should, with exercise and a liberal use of clover, alfalfa or roots, give satisfactory results.

#### VOTING AS FARMER'S SON.

1. Can a young unmarried man, who is a carpenter and works at his trade, or other work not on his father's farm, though assessed as farmer's son, vote at a rural public-school meeting?

2. Can a young man assessed as farmer's son vote at a public-school meeting, who has been under contract by the month or by the year, being from home the greater part of the year, and who happens to be home two months just before school-meeting day?

Ontario. SUBSCRIBER.

Ans.—1. Yes, assuming that he resides on his father's farm.

2. No.

#### PERCHLORIDE OF MERCURY.

1. What solution of perchloride of mercury should be used for spraying hen-house?

2. For lice on cattle? Is it a safe remedy to use on cattle?

C. L.

Ans.—1. Perchloride of mercury, or corrosive sublimate, is such a strong poison that I would not advise the use of it in the henhouse. If it is used, all drinking and eating vessels would have to be removed, and great care taken that none of it come in touch with the food of the birds. I think it much better practice to use fresh lime as a whitewash, or spray with diluted carbolic, or with Zenoleum, which is supposed to be a non-poisonous material.

2. For the same reason, I would not recommend its use on cattle, except in dealing with the insects that bury themselves in the skin of the animal; then it might be thoroughly rubbed in, so as to come in touch with the insect. I think that we may say, in general, that anything that is so rank a poison as this material ought not to be used where some other more harmless material will give equally good results.

R. HARCOURT.

#### A KITCHEN CABINET.

A rents a house to B. B's son, who is a minor, enters into contract with an agent selling kitchen cabinets. The contract was a farce throughout, full of misrepresentations. Time expired when notes became due, and the parents of the young man refused to recognize them, notifying the company to that effect. Since notes became due, B has left the premises, and also the cabinet. A has relet the premises to another party. What steps should A take to have cabinet removed? Is A entitled to storage dues from the company, and how much per month?

Quebec. SUBSCRIBER.

Ans.—A ought to notify the company by registered letter to remove the cabinet forthwith, and that if it be not taken away by a certain date, to be stated in the letter (and which ought to be reasonable, having regard especially to the distance at which company's place of business is from the house in question), storage would be charged for, at a rate per day, week or month, to be also stated in such letter. We cannot estimate the rate, if any, that could be collected. It would be only what would be considered reasonable, having regard to all the circumstances.

## Boo Spavin

Cure the lameness and remove the bunch without scarring the horse—have the part looking just as it did before the blemish came.

**Fleming's Spavin Cure (Liquid)** is a special remedy for soft and semi-solid blemishes—Bog Spavin, Thoroughpin, Splint, Curb, Capped Hock, etc. It is neither a liniment nor a simple blister, but a remedy unlike any other—doesn't irritate and can't be imitated. Easy to use, only a little required, and your money back if it ever fails.

**Fleming's Vest-Pocket Veterinary Adviser** describes and illustrates all kinds of blemishes and gives you the information you ought to have before ordering or buying any kind of a remedy. Mailed free if you write. FLEMING BROS., Chemists, 75 Church St., Toronto, Ontario



## "ELECTRO BALM"

CURES ECZEMA.

Also Itches, Burns, Scalds, Chaps, and Hand and Face.

Gentlemen use it after shaving. This Balm is handled by the best druggists and is highly recommended by those who have used it.

Write for Free Sample

ENCLOSE 2c STAMPEL FOR POSTAGE

50c. a Box at all dealers or upon receipt of price from

THE ELECTRIC BEAN CHEMICAL CO., Ltd., OTTAWA.

### Shorthorns, Cotswolds, Berkshires.

In Shorthorns: 40 females, comprising 9 calves, 6 yearlings, 6 two-year-olds, and the balance cows from 3 years up. In Cotswolds, a few breeding ewes. No Berkshires to offer at present. CHAS. E. BONNYCASTLE, Station and P. O., Campbellford, Ont.

### Maple Grange Shorthorns

Royal Bruce, imp., a Bruce Mayflower, is the sire of all my young things. Nonpareils, Clarets, Myrtles and Lavinias. Heifers up to 2 years of age, of showing type. Several young bulls, thick, even and mellow.

R. J. DOYLE, Owen Sound, Ont.

### 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.

4 SHORTHORNS (FEMALES) for sale. Of choicest breeding, with size and quality. Two thick, fleshy young bulls, from good milking dams. Prices moderate. Stewart M. Graham, Port Perry Ont.

## Heart Trouble

Caused Dizziness, Weakness and Smothering Spells.

Through one cause or another a large majority of the people are troubled, more or less, with some form of heart trouble. Wherever there are sickly people with weak hearts, Milburn's Heart and Nerve Pills will be found to be the most effective medicine on the market.

Mrs. F. Leslie Craig, 114 Erie Ave., Brantford, Ont., writes:—"It is with the greatest of pleasure I write you stating the benefit I have received by using Milburn's Heart and Nerve Pills. I suffered greatly from heart trouble which caused dizziness, weakness and smothering spells. I used a great deal of Dr.'s medicine but received no benefit. A friend advised me to buy a box of your pills, which I did, and before I had finished one box I felt so much better I continued their use by taking two boxes. I highly recommend these pills to any one suffering from heart and nerve trouble."

Milburn's Heart and Nerve Pills are 50 cents per box, or 3 for \$1.25, at all dealers, or mailed direct by The T. Milburn Co., Limited, Toronto, Ont.

## GIRNGOW SHORTHORNS

Have on hand four young bulls from 10 to 13 months old; also a number of choice heifers. For particulars write:

Wm. Smith, Columbus, Ont.

## Sunnyside Shorthorns

With 45 head to select from, of Scotch-bred Shorthorns, we can meet the requirements of anyone looking for choice females of any age, or a herd-header fit to be called such. Write us your wants.

Estate of Late JAS. GIBB, Brookside, Ont.  
W. E. GIBB, Manager.

**Shorthorns, Clydesdales, Oxford Downs**  
A number of red and roan bul., 6 to 12 months, by Blossom's Joy = 73741 =; some with imp. dams. Heifers 1 and 2 years. Clydesdales of both sexes. Oxford Down weas. All at reasonable prices. I have connection. McArlane & Ford, Dutton, Ont.

Joseph Leiter, in an interview on his yacht Chantecler, said with a smile: "Please quote me accurately. In an interview, you know, the slightest inaccuracy can make a man ridiculous. It is like the Frenchman who, though he had a very fair knowledge of English, nevertheless said to a father: "Aha! Your son he resembles you. A chip off the old blockhead, hein?"

## SHE CURED HER HEART DISEASE

When She Cured Her Kidneys with Dodd's Kidney Pills.

Mrs. Henry J. Jacques found a speedy relief for all her troubles, and now enjoys the best of health.

St. Rose du Lac, Man., January 16, (Special)—That Heart Disease is one of the results of disordered kidneys, and is consequently easily cured by Dodd's Kidney Pills, is the experience of Mrs. Henry J. Jacques, of this place.

"My heart troubled me all the time," said Mrs. Jacques in an interview. "And I knew what terrible results might follow. The fact that my limbs would swell and my back ache led me to believe that I also suffered from Kidney Disease, so I determined to try Dodd's Kidney Pills. I bought four boxes, and before I had finished the third box the swelling was gone, my back was well, and my heart no longer troubled me. I am now in the best of health, and I owe it all to Dodd's Kidney Pills."

Heart Disease is one of the troubles that come from unhealthy kidneys. They fail to strain the impurities out of the blood, and those impurities are bound to affect the heart, which is the engine that propels the blood through the body. To cure Heart Disease, cure the kidneys with Dodd's Kidney Pills, to prevent Heart Disease, keep the kidneys toned up and healthy by using Dodd's Kidney Pills.

## GOSSIP.

In almanacs fashions have changed. Within the last few years progress has produced an almanac in accord with the times. Containing not only all practical, scientific information regarding the changes of season and the movement of astronomical bodies, the modern almanac goes further and makes itself each year a purveyor of the latest gospel of agriculture by giving strong, striking, signed articles from the great authorities of agriculture. Of such a nature is the handsome 100-page almanac recently issued by the International Harvester Company of America, with general offices in Chicago, Ill. In usefulness it has not been surpassed by its authoritative utterances. Some feature articles in the new almanac are by Prof. P. G. Holden, of the Iowa College of Agriculture, who writes on "Corn"; W. D. Hoard, editor of Hoard's Dairyman, who tells about "Up-to-date Dairying"; "Building Suggestions," by J. E. Wing; "Farm Power," by Prof. E. C. Lucke, of Columbia University; and many other subjects are interestingly treated. Ask the company for a copy of this very valuable book.

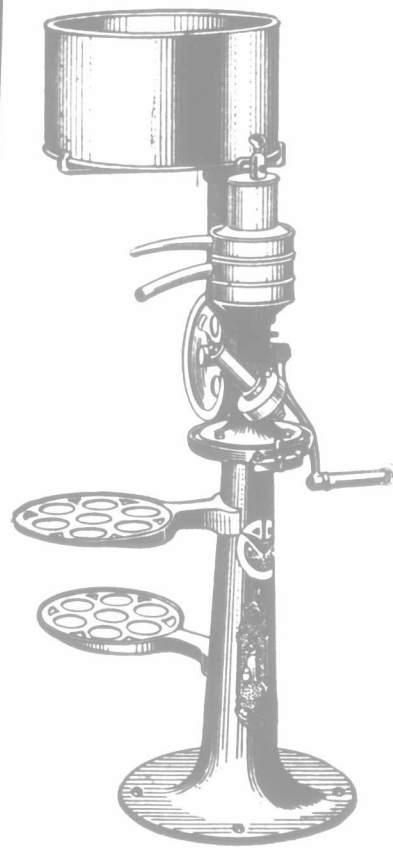
## THE ST. THOMAS AYRSHIRE HERD.

While in the vicinity of St. Thomas a few days ago, a representative of "The Farmer's Advocate" called on James Begg, the well-known breeder of Ayrshire cattle, and as usual found his splendid herd in fine condition, and looking their best. This is one of the best herds of Ayrshires in Western Ontario, having for a number of years been systematically culled and intelligently bred for increased production. They are now practically all in the Record of Performance, the performance of a few of them qualified as follows: Madeline B., 7,135 lbs. as a two-year-old; Ethel Belle, 9,258 lbs. as a three-year-old; Dairymaid, 9,000 lbs. in 8 months; White Heather, 9,500 lbs. in 290 days; Nettie's Jewel, 9,090 lbs. in 270 days; Bonnie, 7,280 lbs. as a two-year-old; Lady Betty, 7,180 lbs. as a two-year-old; etc. The above splendid showing is just what would be expected from the grand type and udder development so conspicuous in the entire lot; the butter-fat test averaging from 4.21 to 5%. The stock bull in service is Prospector, sired by Lord McAllister of Glenora; dam Mabel, with an official Record of Performance qualification. For sale are six young bulls, sons of Record of Performance cows; a nice, straight lot, true to type, with breeding unexcelled. The farm lies one-half mile west of the limits of the City of St. Thomas, and is connected with long-distance Bell phone; the postal address being: Rural Route No. 1, St. Thomas.

## RIVERSIDE HOLSTEINS.

Among some of the recent sales of Holsteins made by J. W. Richardson, Caladonia, Ont., mention is made of a choice pair of heifers to N. Mitchener, Red Deer, Alta. Mr. Mitchener purchased a number at Mr. Richardson's sale last winter, laying a foundation for a herd. He again came east to strengthen his herd of high-class stock, and secured "Hulda Wayne Johanna Lass," who combines some of the most popular blood of the breed. She is a choice individual, and a producer. Her official record at two years is 13.93 lbs. butter, 315.7 lbs. milk in 7 days, 1,268.6 lbs. milk, 55.8 lbs. butter in 30 days. She is sired by "Johanna Rue 4th's Lad," whose dam is a sister to Colantha 4th, the dam of an official record of 35.22 lbs. butter in 7 days, 1,246.8 lbs. butter in 1 year, the world's champion. Johanna Rue 4th's Lad has now the largest number of Record of Merit daughters in Canada, surpassing Victor De Kol Pieterje, who was at the head of the Riverside herd for five years. Both of these bulls have 27-lb. daughters. Mr. Mitchener exhibited her at Calgary in a strong class of cows, winning first and championship over all. He also selected Mercedes of Riverside, a choice two-year-old. She is a daughter of Sir Pieterje Posch De Bont, out of a 20-lb. cow. C. Herbst, Alfeldt, Ont., secured Riverside Johanna Posch Lad to head his promising young herd. He is a fine individual. His dam is Nancy Wayne of Riverside 4th, official record at 2 years 374.6 lbs. milk, 15.1 lbs. butter in one week.

## INTENSIVE DAIRYING



demands that you get the utmost cream out of every drop of whole milk. Good cows do not yield their fullest returns except through

## The Capital

The separator that gets 999-1000 of all the cream. Send for our little book that tells why The Capital skims closer—why it wastes less than 1-5 the cream that other separators waste, how its gears run in oil, how they mesh perfectly and run so easily—about its wing cylinder and 3½-pound—7,000-revolutions-a-minute bowl.

Better send for this book, before the edition is exhausted.

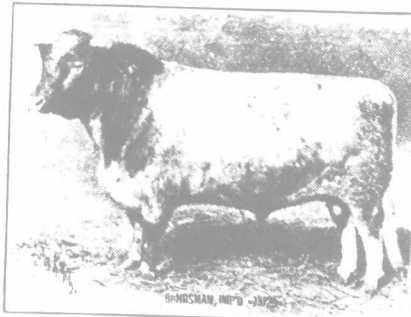
The National Mfg. Co.

LIMITED

Head Office: OTTAWA, ONT.

Factories: Ottawa and Brockville.

Branch Offices: Regina, Sask.; Edmonton, Alta.; Moncton, N. B.



## SCOTCH SHORTHORNS

100 HEAD IN HERD.

Headed by the imported bulls: Bandsman, a half-brother to the \$6,500 Count Crystal, the highest priced calf on record in Scotland; and Village Duke, a son of Villager, winner of 18 first and special prizes in Scotland. For sale: 12 good young bulls of the choicest breeding; and 40 young cows and heifers. All of noted Scotch breeding. In call to our stock bulls.

Farm ¼ 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 bred for March.

H. M. Vanderlip, Cainsville, Ontario, P. O. and Station.

Also Langford Station. B. H. Radial in sight of farm. Bell phone.

## SALEM STOCK FARM

Elora, G. T. R. and C. P. R., 13 miles from Guelph.

Young bulls fit to head the best herds; are priced reasonably. Can suit you in SCOTCH SHORTHORNS of any age.

## PLEASANT VALLEY SHORTHORNS

For Sale: 1 red, 1 roan, 2-year-old show bulls. Several good 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. ½-mile from farm.

## Scotch Shorthorns

—Eight extra good young bulls, from 10 to 15 months old; 20 choice cows and heifers, forward in calf or invited. Farms close to Burlington Junction, G. T. R.

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

## BRAMPTON Jerseys

CANADA'S GREATEST JERSEY HERD  
We are offering for sale one 2-year-old bull and our yearlings, fit for service; also six bull calves, females of all ages. Come and see them or write.

S. H. BULL & SON BRAMPTON, ONT.

High Grove Jerseys No Better Blood in Canada. Present offering: Two choice young bulls about fourteen months old. Will be sold right, before going into winter. ARTHUR H. TUFTS, P. O. BOX 111, TWEED, ONTARIO.

## DON'T


Buy a HOLSTEIN BULL till you get my prices on choice goods from eight months down, from best producing Harrietsville, Ont. FRED ABBOTT.

Evergreen Holsteins For sale: 5 young bulls, out of R. O. M. dam, and sired by Sir Mercena Fafant, whose two nearest dams records average 24.60 lbs. Can also spare a few females. F. E. PETTIT, Burgessville P. O. and Sta. Oxford Co.

Ridgedale Holsteins—I have left three bull calves that will be priced right for quick sale; their dams are heavy producers, and their sire was bred right. R. W. WALKER, Utica, Ont. Phone connection.



## Lump Jaw



The first remedy to cure Lump Jaw was Fleming's Lump Jaw Cure and it remains today the standard treatment, with years of success back of it, known to be a cure and guaranteed to cure. Don't experiment with substitutes or imitations. Use it, no matter how old or bad the case or what else you may have tried—your money back if Fleming's Lump Jaw Cure ever fails. Our fair plan of selling, together with exhaustive information on Lump Jaw and its treatment, is given in Fleming's Vest-Pocket Veterinary Adviser. Most complete veterinary book ever printed to be given away. Durable bound, indexed and illustrated. Write us for a free copy. FLEMING BROS., Chemists, 75 Church St., Toronto, Ontario

**FAIRVIEW FARM**—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 34.41 lbs. each, equalled by no other two full sisters of the breed. Also sons of Sir Johanna Colantha Glad, whose dam and sire's dam average 33.61 lbs. each, which is higher than can be said of any other sire of the breed. Dams of many of these calves are high-record daughters of Pontiac Korndyke and Rag Apple Korndyke. Write me for breeding and price. E. H. DILLAR, Heuvelton, St. Law Co., N. Y.

**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 in to 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,**  
Eimdale Farms, Thorold, Ontario

**WOODBINE FARM HOLSTEINS**  
Offers a number of fine bulls and bull calves, sired by Sir Creamelle, who is a direct descendant in two different lines of the great cow, Duchess Ormsby 24.44 lbs. butter in 7 days, dam of five daughters with records that average 20 lbs. of butter in 7 days, the greatest producing family of the breed. Write for prices. Telephone connection. Shipping stations: Ayr, C. P. R.; Paris, G. T. R. A. KENNEDY, AYR, 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 K 1 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 grand dams 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 Tamworths for Sale**—Seven bulls, bams 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.

**Elmwood Holsteins**—Choice bred calves for April and May delivery. Sired by imported Ykema Sir Posch and Pontiac Sarcastic, a grandson of Sarcastic Lad. Registered. Delivered. Express paid. Safe delivery guaranteed. E. D. GEORGI & SONS, PUTNAM, ONT.

**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.**

**Holstein Bulls!**  
Maple Grove offers a few richly-bred bulls fit for service. For particulars and breeding write: H. BOLLER, CASSEL, ONT.

**Glenwood Stock Farm**—Holsteins and Yorkshires. Holsteins all sold out. Have a few young Yorkshires sows, about 2 months old, for sale cheap. True to type and first-class. Bred from imported stock. **Thos. B. Carlaw & Son, Warkworth P.O., Ont. Campbellford Station.**

ADVOCATE ADVERTISEMENTS PAY.

QUESTIONS AND ANSWERS. Miscellaneous.

**TANNING SHEEPSKIN FOR RUG**  
Please give instructions for dressing a sheepskin, with the wool left on for a rug. SUBSCRIBER.

Ans.—You will find it less expensive and much more satisfactory to send the skin to a tannery for dressing than to undertake it yourself.

**CAPACITY OF SILOS.**  
How many feet of silage in a silo 15' 6" in diameter would be equivalent to ten feet of silage in a silo 11' 4" in diameter? SUBSCRIBER.

Ans.—We have not the information to answer this question exactly. In cubic capacity, ten feet of depth in a silo 11 feet 4 inches would be equal to 5.316 + feet (or a little over 5 1/2 feet) in a silo 15' 6" in diameter. But the material in the narrower and deeper silo would probably be of a slightly greater average weight per cubic foot; that is, assuming that the superimposed weight, if any, had been equal in each case.

**UMBILICAL HERNIA.**  
Registered filly colt, 7 months old, about three months ago rupture appeared just behind navel cord, size of large hen's egg. No change in size since. Advise. H. C. H.

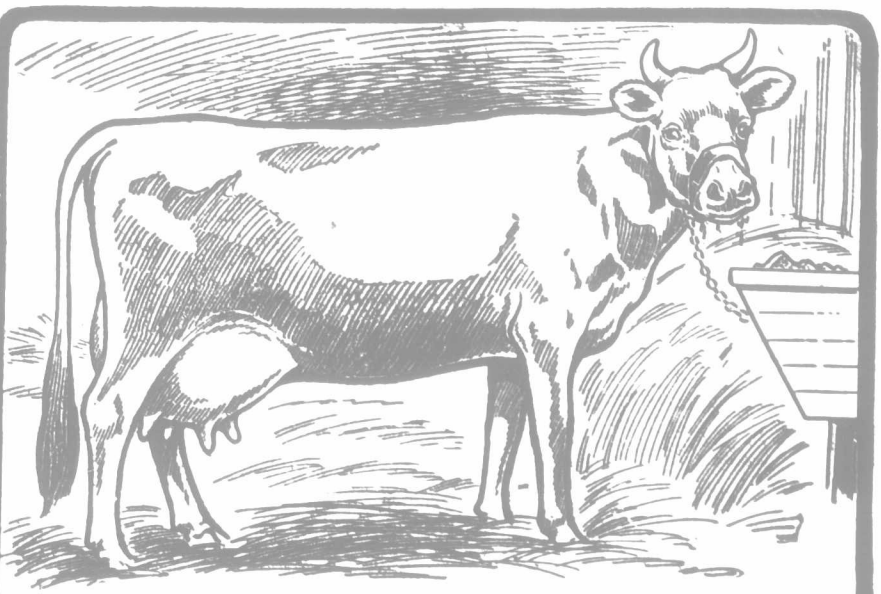
Ans.—Would advise you to apply a truss, with an elevation about the size of 1/4 a baseball on it. Apply so that the elevation presses on the rupture and keeps it pressed up into the abdomen. Arrange truss with straps or strings passing forward and attached to a strap around the colt's neck, to prevent the truss from slipping backwards. Keep this on for 3 to 4 weeks, and if a cure is not effected, have your veterinarian operate, by which means usually a cure is effected, when the rupture is not large.

**SCRATCHES.**  
I have a two-year-old gelding that has very itchy hind legs. He will rub the hair and skin off. I have been greasing his legs with sweet oil and carbolic acid, which heals them for a time. J. R.

Ans.—This affection is commonly known as scratches. Let the horse rest a few days. Give a purgative ball of 6 to 10 drams aloes and 2 drams ginger, according to size. Feed bran only until purgation ceases, and then feed very little grain until he is put to work again. Follow up with 3 drams nitrate of potash twice daily for a week or ten days. Keep the parts as clean as possible without washing. Soap and water should be kept off the parts affected. In warm weather a lotion made of 1 oz. each, sulphate of zinc and acetate of lead; 1/2 oz. carbolic acid and a pint of water, has been found satisfactory; in cold weather probably the oxide of zinc ointment is best, to which is added 20 drops of carbolic acid to the ounce. Whether the lotion or the ointment is used, it should be applied 3 or 4 times a day.

**HORSE QUESTIONS.**  
1. How much oats a day should be fed a 900-lb. horse doing nothing?  
2. How much bran and oil-cake meal should be fed?  
3. How should a bran mash be prepared?  
4. What will give a horse a nice, sleek coat of hair?  
5. Is there such a breed of horses as Norman? What is their size and color? SUBSCRIBER.

Ans.—1. A gallon of oats daily in three feeds should be sufficient for a horse of that size while not working, with hay and oat straw as roughage.  
2. A quart of bran and a handful of oil-cake meal with each feed of oats would be sufficient.  
3. To prepare a bran mash, pour hot water on it, cover the pail and let stand for a couple of hours, then add a little cold water before feeding, but not enough to make it sloppy.  
4. The above feeding, coupled with good blanketing, grooming and exercise, should keep the coat sleek.  
5. Yes, the Norman or Percheron is a popular French draft breed, the prevailing color of which is black or gray; height, 15 1/2 to 17 hands; weight, stallions, 1,700 to 2,000 lbs.; mares, 1,500 to 1,800 lbs.



**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 11% 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.

Write the Dominion Linseed Oil Company, Limited, Baden, Ontario.

**LAKEVIEW HOLSTEINS**  
Bull calf born April 2nd, 1910; mostly white; sire Count Hengerveld Fayne 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**

**FAIRMOUNT HOLSTEINS.**  
Herd headed by Aaggie Grace Cornucopia Lad, whose dams for four generations averaged 21.30 lbs. butter 7 days. 13th males and 1 females for sale, which will be proved right. Also Barred Plymouth Rock cockerels of a good laying strain, price \$2. C. R. GIES, HEIDELBERG, ONTARIO.

**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.

**Homewood Holsteins**—Headed by Grace Fayne 2nd 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, Springfield, Ont.**

**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, Falden's, Ontario**

**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.**

**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.**

**Stockwood Ayrshires**  
Imported and Canadian-bred. High producers and high testers. Females of all ages for sale; also several young bulls, from 8 to 13 months old. Imp. sires and out of imp. dams. Right good ones, and bred from winners.  
**D. M. Watt, St. Louis Station, Quebec.**

**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 several young bulls most richly bred. **JAMES BEGG, R. R. No. 1, St. Thomas, Ont.** Bell phone.  
When writing please mention this paper.

**CRAIGALEA AYRSHIRES!**  
Our record: Every cow and heifer entered in Record-of-Performance, and retained in herd until test was completed, has qualified. Heifers and young bulls for sale of showing form. **H. C. HAMILL, BOX GROVE P. O., ONT.** Markham, G. T. R.; Locust Hill, C. P. R. Bell phone connection from Markham.

## Caught a Cold Which Ended in a Severe Attack of Pneumonia.

Too much stress cannot be laid on the fact that when a person catches cold it must be attended to immediately, or serious results are liable to follow.

Bronchitis, Pneumonia and Consumption are all caused by neglecting to cure the simple cold.

Mrs. G. W. Bowman, Pattullo, Ont., writes: "Three years ago I caught a cold which ended in a severe attack of Pneumonia. Since that time at the beginning of each winter I seem to catch cold very easily. I have been so hoarse I was unable to speak loud enough to be heard across the room. Last winter, however, a friend advised me to try Dr. Wood's Norway Pine Syrup, saying it had helped her. I bought a bottle and before it was half used I was completely cured. I also find it a good medicine for the children when they have colds."

Beware of the many imitations of Dr. Wood's Norway Pine Syrup.

Ask for "Dr. Wood's" and insist on getting what you ask for.

It is put up in a yellow wrapper; three pine trees the trade mark; the price, 25 cents. Manufactured only by The T. Millum Co., Limited, Toronto, Ont.

## Worth Looking Into

When it becomes necessary to buy feed, it will be well to keep in mind the word

### "CRESCENT."

"Crescent" is a mixed chop, with the Government analysis on every bag. One of the largest dairy herds in Ontario recently ordered a carload, and the order was placed after thoroughly testing its value as a dairy feed. Ask your dealer about it. If he does not know, write us. We can give you a close price on a carload.

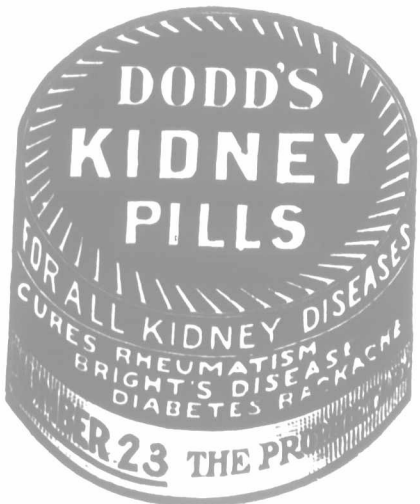
THE CHISHOLM MILLING CO., LIMITED  
"A" Jarvis Street, Toronto, Ont.

## STAMMERERS

The methods employed at the Arnott Institute are the only logical methods for the cure of stammering. They treat the TALK, not merely the habit, and insure NATURAL Speech. If you have the slightest impediment in your speech, please write us. Careful pupils everywhere. Pamphlet, particulars and references sent on request.

The Arnott Institute, - Berlin, Ont., Can.

On being asked to comment on the following passage: "This England never will and never shall lie at the proud foot of a conqueror!" a pupil teacher thus contemptuously replies: "(1) This is impossible, because it implies that a conqueror has only one foot, whereas he has two. (2) This is absurd, because pride is located in the heart of man, not in his foot."



## QUESTIONS AND ANSWERS Miscellaneous.

### OATS TO RIPEN WITH BARLEY.

What kind of oats will ripen best with six-rowed barley, and where I could procure ten bushels?

Ans.—The Daubeny oat is perhaps the best variety to sow with six-rowed barley. Prof. Zavitz, at Guelph, is trying to produce a new variety that will combine high-yielding with other desirable qualities, and still ripen early enough to be suitable for sowing with six-rowed barley. We do not know that he has anything of the kind ready to send out yet. Meantime use the Daubeny.

### FEEDING SULPHUR—COLIC.

1. Is there any benefit in feeding sulphur to either horses, cattle or hogs? And if so, in what quantities and how often to feed it to each animal?

2. I have a mare, in foal, subject to colic. What would act as a preventive? Would Glauber's salts do, and if so, how often and in what quantity to feed it?

Ans.—1. Provided the animals are judiciously fed, with food of good quality, there is no need of feeding sulphur or other drugs. As a rule, the less dosing the better.

2. Feed the mare carefully on a limited quantity of first-class quality hay. Mix bran or sifted chaff with her oats. Be careful in watering, not to allow her much cold water, especially when the animal is warm. Water half an hour before feeding grain. The feeding of a tablespoonful of ginger every night in the food tends to ward off attacks of colic by keeping the digestive apparatus in tone. In the case of an attack of colic, an ounce of spirits of turpentine, say half a teaspoonful in a pint of raw linseed oil, generally gives relief. We have but little faith in the action of Glauber's salts as a preventive.

### CEMENT COVER FOR CELLAR.

1. As I intend building a root cellar under driveway of barn, to be covered with cement, would ask you to let me know how it should be done. If railway rails are used, how far should they be placed apart? The span will be 12 feet. Should rails be under cement, or bedded in it?

2. Should wire web or web fencing be used, and how?

3. What proportions of cement and gravel, and what thickness to be strong enough to carry threshing machines and other loads?

4. What weight of rail should be used, and about what will it cost per pound?

5. Could you advise me where I could get some second-hand piping, say 14- and 2-inch. Please give any other information you can regarding cellar.

Ans.—1. Either second-hand railway rails or I beams six inches wide on a 12 foot span, should be placed not more than three feet apart, and under the concrete slab they support. They should be wound with wire and coated with rich cement to prevent rusting. A simple wash is scarcely sufficient. The beams might be imbedded in the cement, near the bottom. Or, a better way still—the best way of all, in fact—would be to have the rail slightly imbedded in the slab, but mostly beneath, and surrounded with a flaring beam of cement.

2. Wire webbing, made for the purpose, or what is called expanded metal, should be used as reinforcing, being imbedded in the concrete an inch from the lower surface.

3. Concrete floor should be at least five inches thick, and mixed 1 of cement to 4 of gravel.

4. It would not pay to buy new rails, but sometimes old rails may be obtained cheaply. It is a matter of bargain-making. Weight varies from 40 to 50 lbs. per yard.

5. Apply to dealers in old iron in nearest town.

6. Several inches of earth should be placed over cover to keep out frost and to insulate.

Consult your county engineer as regards to metal supplies.

## WON'T WEAR OUT!

Fit these wheels to the wagons you now use, made of steel—patterned like a bicycle wheel—strain evenly divided—absolutely SMASH-PROOF.

**EASY ON HORSES AND MEN**  
Our wheels fit any axle—out-last wood wheels ten to one—yet cost but little.

**ASK TO-DAY ABOUT PRICE**  
Guaranteed every way—against breakage and dry-rot. Inquire!



## DON'T WORK SO HARD!

Invest a few dollars in a Handy Wagon, and save yourself muscle-ache, and your horse's toil. It does save!



ASK now about the wagon that saves a man's labor, and lasts till you are tired of it. Write to: **TUDHOPE KNOX CO., LTD., Successors to Dominion Wrought Iron Wheel Co., Ltd., ORILLIA, ONTARIO.**

I have big, thick and woolly rams and ewes, mostly lambs, but some yearlings, both

## Shropshires and Cotswolds

Have also the best lot of young SHORTHORN BULLS have ever bred, sired by one of Whitehall Sultan's greatest sons. They will be sold worth the money. You should write soon. **ROBERT MILLER, STOUFFVILLE, ONT.**

## CATTLE and SHEEP LABELS

Metal ear labels with owner's name, address and any numbers required. They are inexpensive, simple and practical. The greatest thing for stock. Do not neglect to send for free circular and sample. Send your name and address to-day.

**P. G. JAMES, BOX 71, MANVILLE, ONTARIO.**

## SOUTHDOWNS

Alloway Lodge Stock Farm

First-prize Canadian-bred flock at Toronto, 1909 and 1910. Your choice of the best lot of rams I ever owned. The prices are right.

Long-distance phone **ROBT. McEWEN,** Railway station, London, BY-ON, ONTARIO.

## FARNHAM FARM OXFORDS AND HAMPSHIRE

CHAMPION FLOCKS OF BOTH BREEDS.

We are offering at reasonable prices a limited number of yearling and two-shear ewes by imported sires and bred to our two champion imported rams. Long-distance phone in the house. Central Guelph. Telegraph Guelph. **HEARY ARKELL & SON, ARKELL, ONT.**

## MAPLE VILLA OXFORD DOWNS AND YORKSHIRES

Are ideal in type and quality. Present offering is a grand lot of ram lambs for block headers, also a number of shearing ewes and ewe lambs, sired by imp. Hamptonian 22nd. Yorkshires of both sexes and all ages. Right good ones. Satisfaction assured.

**Bradford or Beeton Station. J. A. CERSWELL, Bond Head P.O., Ont.**

## Shropshires

The right quality to breed from. Choice animals of both sexes for sale. Also White Wyandotte cockerels. **W. D. Monkman, Bond Head, Ontario.**

## STOP! LOOK!! READ!!! FAIRVIEW SHROPSHIRE!!!!

Home again, and are feeling well. Ready to start making good for another year. Conditions seem right for constant progress. We are determined to lead, follow who may.

**J. & D. J. CAMPBELL, Fairview Farm, Woodville, Ontario.**

## Swine OF ALL BREEDS FOR SALE.

I breed Yorkshires, Tamworths, Berkshires, Hampshires, Chester Whites, Poland-Chinas and Duroc-Jerseys. I have constantly on hand both sexes of all ages. Show stock a specialty. **John Harvey, Freilighsburg, Que.**

## HILLVIEW YORKSHIRES

High-class young stock of both sexes for sale, sired by Craighook Duke imp. —16065—, out of large mature sows. It will pay you to get our prices. **G. T. R. and C. P. R. W. F. DISNEY, Greenwood, Ont.**

## FAIRVIEW BERKSHIRES

Ontario's banner herd. Prizewinners galore. For sale are: Young sows, bred and others ready to breed, and younger ones. A number of young boars coming on. **JOHN S. COWAN, Donegal, Ont.**

## BERKSHIRES

A few choice young pigs three months old for sale. Apply to: **S. J. LYONS, Box 19, NORVAL, ONT.**

## Pine Grove Berkshires.

Sows bred and ready to breed. Nice things three and four months old. **Milton, C. P. R. Georgetown, G. T. R. W. W. Brownridge, Ashgrove, Ontario.**

## DUROC - JERSEY SWINE

30 choice young sows, bred and ready to breed. Young boars fit for service. Also a choice Jersey bull calf. Bell phone in house. **Mac Campbell & Sons, Northwood, Ont.**

## White-Belted Hampshire Hogs

Our herd is the largest in Canada. We have won and bred the hogs that won both championships at Toronto and London for two years. For sale are both sexes, all ages. **HASTINGS BROS., Crosshill, Ont.**

## Pine Grove Yorkshires

For sale: A choice lot of young boars fit for service; also sows already bred. Are hooking Property of **Joseph Featherston & Son, Streetsville, Ont.**

## Hilton Stock Farm Holsteins and Tamworths.

Present offering: 6 yearling heifers and several younger ones. All very choice. Of Tamworths, pigs of all ages and both sexes; pairs, not akin. **R. O. MORROW & SON, Hilton, Ont.** Brighton Tel. & Stn.

## Maple Leaf Berkshires

For sale: Young sows bred and ready to breed; boars fit for service; also young pigs eight to ten weeks old. Imp. sires and dams. Pairs not akin. **C. P. R. and G. T. R. Bell phone. Joshua Lawrence, Oxford Centre, Ont.**

## LARGE WHITE YORKSHIRES

Have on hand at the present time a choice lot of boars ready for service, and a fine lot of young bred sows for the fall trade. Young pigs all ages. Pairs supplied not akin, from large imported stock. Write, or call on

**H. J. DAVIS, WOODSTOCK, ONTARIO** Long-distance Bell phone. C. P. R. and G. T. R.

HARD!

Vagon, and horses toll.



For a man's Write to Messrs. to Co., Ltd. ONTARIO

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GOSSIP.

Wm. LINTON'S SHORTHORN SALE.

That the purchasers of the Shorthorns to be sold at the dispersion sale of Wm. Linton, at Aurora, Ont., on Wednesday, February 1, 1911, will prove a profitable investment, we are thoroughly convinced, knowing the excellence of many animals bred from this same stock that have found their way into other hands. The herd in general presents a combination of Bates, Booth and Scotch breeding. As noted last week, a number of them are of the great Sowerby strain, the oldest being Sowerby's Isabella, a red-and-white five-year-old, sired by Imp. Rocket, a son of the famous Royal winner, Halto, dam by Royal Booth 2nd, the sire of the Columbian World's Fair gold-medal heifer. Another of the breeding matrons of the same tribe is, Sowerby's Flower, a roan four-year-old, sired by Imp. Patriot, a Broadhocks, and a son of the \$5,000 Princess Royal bull, Prince Victor. Both these cows have yearling daughters sired by the Miss Ramsden bull, Prince Ramsden—6495—, a son of the great bull, Darnly, that did so much good for the Russells. The dam of Prince Ramsden was Miss Ramsden 19th, by Imp. Fitz Stephen Forrester. It will be noted that all the young things in the herd are the get of this bull. These two cows represent the breeding of the Sowerby tribe. Another tribe of which there are several, is the Irwins. Irwin's Lily, sired by Imp. Patriot, dam Irwin's Gem 4th, by Roan Sowerby. This is representative of the breeding of this tribe. Another tribe represented is the Lady Anns, one being Maud 11th, by the Marr Roan Lady bred bull, Imp. Lusty Prince. All told, there will be sold, 20 head, several of them being yearling heifers, and there are three bull calves up to three months of age. The young things show an excellence of type that bespeaks high-class individuality when developed. Mr. Linton is probably the oldest importer and breeder of Shorthorns in Canada to-day. His whole life has been associated with the breeding of Shorthorn cattle. As a young man with his father in England, where for eighty years, without a break, their herd was one of the best in the British Isles, and the same strain of cattle that won fame for the Lintons in England will be sold at this sale. As one of the founders of the Shorthorn Society in Canada, Mr. Linton has been intimately associated with every move tending to the upbuilding and advancement of that association, and has held every position of honor in the gift of that legislative body, but age is compelling him to step down and out of the ranks of the active breeders, and it is sincerely to be hoped that on the day of sale there will be a goodly number of breeders present, and that the dispersal of his herd will be long remembered by him as the crowning event of his life.

BOOK REVIEW.

POPULAR FRUIT-GROWING.

The necessity for fresh editions of a book is popular evidence of its value. The title of Prof. Samuel B. Green's last work, "Popular Fruit-growing," was well chosen, and the third edition, revised shortly before the author's death last year, is one that either amateurs or professionals will appreciate. As many "Farmer's Advocate" readers are aware, Prof. Green worthily held the Chair of Horticulture and Forestry in the Minnesota University, so that his observations and teachings, which, above all else, are practical, are particularly applicable to north temperate-zone conditions. The lists of questions after each chapter are very helpful to readers who wish to test the value of their reading, or to teachers. Many helpful illustrations are given, and there is a chapter on nut growing. A notable oversight in the book is that, while the lists of recommended fruits for different States and Provinces, only one Canadian list—that for Saskatchewan—is given, but Canadians are well supplied by some literature on that particular point. The Webb-Edo Co., of St. Paul, Minn., issue the book, which may be secured through this office, at \$1.00, postpaid.

Many trees made beautiful and sweet by devotion, and by self-restraint.

Beat the FARM FENCE TRUST By Purchasing ROYAL BRAND FENCE

Our position in the fence business is absolutely independent of the fence combine; our prices are based upon the cost of wire, adding to this a reasonable amount for manufacturing expense and profit. Nothing added to our price for the Fence Pool; no agents' commissions; no dealers' profits; no bad debts. The farmers' money sent to us direct is just as good as coming through an agent. Agents make unwarranted statements regarding quality of ROYAL BRAND fence in an effort to justify their higher price. Do not permit idle talk to deprive you of a profit which rightfully belongs to the farmer. Our guarantee will protect you, and is as follows:—If upon receipt of an order of ROYAL BRAND Fence, you do not find it to be the best, both in quality of wire and weaving, that you ever purchased at any price, you may return it, and we will pay charges both ways, and cheerfully refund every cent of your money. ROYAL BRAND Fence is made of the best all No. 9 hard steel wire, heavily galvanized. The line wires are waved, as in Coil Spring, to allow for contraction and expansion. Our knot is the simplest and most effective in use, a sample of which, showing weight of wire and style of tie, will be mailed upon request.

Do not delay ordering until the day you want to use your fence. Order now, at the lowest price woven-wire fence has ever been offered to the Canadian farmer. We are receiving hundreds of letters daily, from farmers all over Canada. Many are placing their orders now, as they realize that these prices will bring an enormous rush when the fence season opens, and they do not want to miss this enormous saving. To provide against delays in shipment, we have more than doubled our capacity. Our new plant will permit us to ship 50 miles of fence every 24 hours, but we doubt if this will be sufficient to take care of the demand at the rush. We urge upon you to order now. Good roads makes it easy to team your fence home.

The following styles we carry in stock, and we can ship a 20-rod bale or a carload. We further agree to protect the farmer from any advance in price of fence up to July 1st, 1911. We have contracts with our wire-makers for all we can use at the present price. No danger of our not being able to fill your orders. Buy the fence that gives the farmer a square deal.

6-40-0	Has 6 line wires, 40 in. high, stays 22 in. apart. All No. 9 hard steel wire. Spacing, 7, 7, 8, 9, 9. Price per rod	21½¢	ROYAL BRAND	8-48	8 line wires, 48 in. high, stays 16½ in. apart. All No. 9 hard steel wire. Spacing, 4, 5, 6, 7, 8, 9, 9. Price per rod	30¢
7-40-0	7 line wires, 40 in. high, stays 22 in. apart. All No. 9 hard steel wire. Spacing, 5, 6, 6, 7, 7½, 8½. Price per rod	24¢		9-48-0	9 line wires, 48 in. high, stays 22 in. apart. All No. 9 hard steel wire. Spacing, 3, 4, 5, 5, 6, 8, 8, 9. Price per rod	30¢
8-40	8 line wires, 40 in. high, stays 16½ in. apart. All No. 9 hard steel wire. Spacing, 3, 4, 5, 6, 7, 7, 8. Price per rod	29¢		9-48	Same as 9-48-0, with stays 16½ in. apart. Price per rod	32½¢
7-48-0	7 line wires, 48 in. high, stays 22 in. apart. All No. 9 hard steel wire. Spacing, 5, 6, 7, 9, 10, 11. Price per rod	25¢	KNOT	10-50	10 line wires, 50 in. high, stays 16½ in. apart. All No. 9 hard steel wire. Spacing, 3, 3¼, 3½, 4¼, 5¼, 6, 8, 8, 8. Price per rod	35¢

The above prices include freight prepaid to railroad points west of Toronto, in old Ontario. East of Toronto, add 1c. per rod to the price. To points in New Ontario, Quebec, Maritime and Western Provinces, deduct 2c. per rod from the printed price, customer to pay his own freight from Sarnia. All fence put up in 20, 30 and 40 rod rolls. Remit cash with your order, by registered letter, post-office or express order, to

THE SARNIA FENCE COMPANY, SARNIA, ONTARIO.

A progressive locality like yours ought to have a telephone service

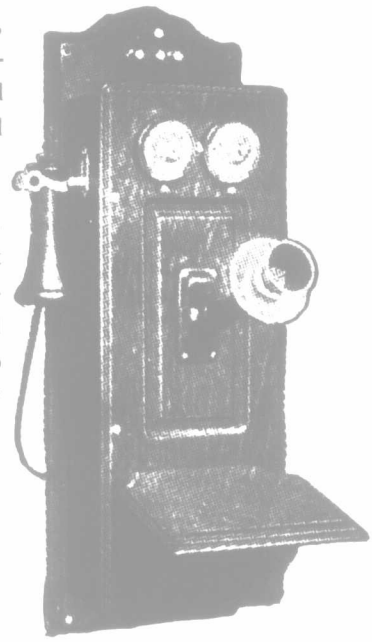
Life is worth living in a progressive locality like yours, with well-kept farms, good churches and schools, and congenial neighbors. But life would be even more enjoyable if your district enjoyed telephone service.

It's true you have got along very well without the telephone, but once you've enjoyed its conveniences and benefits you will never do without it. In fact, it's more of a necessity to the farmer than to the progressive city man. Our handsome book, "Canada and the Telephone," profusely illustrated by a leading artist, tells why the telephone is so necessary to the farmer.

Another book, our Bulletin No. 2, gives complete information regarding the building, equipping and operation of an up-to-date rural telephone system.

Send for both of these books. They're free. And remember that we send telephones for free comparison test with others, and that all our telephones are guaranteed for 10 years against defects in material or design.

At our factory in Toronto we carry large stocks of all kinds of telephone supplies. Your orders will receive prompt shipment. Get our prices. They will be sure to interest you.



Canadian Independent Telephone Co., Ltd.

20 Duncan St., TORONTO, ONT.

Present Your Daughter With a Bank Account

Present your daughter with a bank account and a monthly allowance. Have her pay her accounts by check. Tell her what she saves will be hers.

3½%

This will teach her to save and give her an education in the use of money. Knowledge of the value of money is the first step toward independence.

Agricultural Savings & Loan Co., 109 Dundas St. W., Toronto, Ont.

PLEASE MENTION THE FARMER'S ADVOCATE.

# Refuse Any Roofing Which is NOT Guaranteed for at Least 25 Years

Why should you take ANY risk when you can make the maker take ALL the risk? The cost to you now will differ very little, no matter what roof you put on. So you might as well get the most you can for your money. Don't you think so?

**O**SHAWA Steel Shingles are clearly, positively, responsibly guaranteed—signed guarantee written in plain English—which plainly states that if your roof of Oshawa Steel Shingles gives any kind of roof trouble within 25 years from the day it's first put on, you get an entirely new roof free. There's \$365,000 capital, 50 years' of honorable dealing, and the biggest business of its kind in the British Empire back of this written guarantee making it as legally binding as any that could be given you. Now then, why on earth will you take chances with any other kind of a roofing?

**I**T'S only natural that salesmen for other roofing should "knock" this guarantee of mine. How else are they going to get around it and induce you to buy their roofing, which is NOT guaranteed? What do you think my business reputation would be worth in a year or two if I issued a guarantee that wasn't absolutely square? Don't let any man bluff you—get his promises down in writing, and signed—like mine are. Then the roof will HAVE TO make good. Then FIRST cost will be the **WHOLE** cost, and you'll know what you can count on.



## The ONLY Roof That is Guaranteed At ALL

Isn't it reasonable to assume that makers of other roofing would give you a written guarantee if they dared? If they are so sure their roofing will last as long as mine, why can't they do as I do—give a guarantee that's good for a new roof if the first one gives any trouble? There is nothing to prevent them giving you such a guarantee except their roofing. Is it because they are afraid to take the risk of having to give you a new roof? They want YOU to take that risk. Will you do it? Or will you buy our guaranteed Oshawa Steel Shingles, and have something you can positively depend on? Which is the best bargain from your point of view?

For the life of me I can't understand why any sensible man will go blindly ahead and buy an out-of-date wood shingle roof, or a metal roof which is not guaranteed in writing, without seriously investigating the facts about my Oshawa Steel Shingles.

It is so clearly to his own advantage to get the most he can for his money—you'd think he would be glad to know more about roofing material which is better than any he has yet used. Surely it must be that tendency in human nature to doubt things which seem "too good to be true." By giving way to it many a man robs himself of the fruits of modern industrial progress.

Here I offer to sell you a roof which you know to be good, and which I guarantee (with a guarantee I have to back up or go out of business) to stay a good roof for all of 25 years. Now will you please give me any good reason why any man—YOU, my friend for example—should not be interested enough in getting the best roof for HIS OWN buildings, to send for my book and get all the particulars about my Oshawa Steel Shingles? The book is free—the information it contains is valuable to any man who owns or will ever own any kind of a building.

Will YOU please write for it?

*G. A. Pedlar*

## 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."

## Isn't This The Kind of Roof YOU Want?

A roof that you are absolutely sure will settle every solitary bit of roofing expense for a whole quarter-century. A roof that you pay the same for NOW as you pay for other kinds of roof, but which will need no patching, no fixing or replacing for the next twenty-five years. A roof that makes your building absolutely weatherproof, with never a crack or hole for water or wind to squeeze through, a roof that is fireproof, wind tight, lightning-proof, a roof that needs no painting, no repairing—spring or fall, summer or winter, for all of twenty-five years. They SAY these things about some other roofs—but I positively guarantee them for my Oshawa Steel Shingles.

## Can't Leak, Rust Rot, Warp or Burn

Oshawa Steel Shingles cover your roof with one big, seamless sheet of heavyweight galvanized steel, without a crevice or crack anywhere for water or wind to get into. And it stays that way for twenty-five years. I guarantee it. No leaks of any kind. Keeps out the cold of winter and heat of summer—and being steel affords the best kind of fire protection. Can you imagine any better kind of roof?

## I Want to Send You My Valuable Book—"Roofing Right"

Let me have your name and address, please. I want you to read my book. I believe that when you really get a clear and correct understanding of all sides of this roofing question you'll never be bamboozled with flimsy, unsatisfactory roofs which soon become little better than no roof at all. Do get my book of facts. Write the address nearest you (see below) and I'll send you a copy entirely free.

## Cost Far Less Than Wood Shingles

Don't be too quick about deciding that a wood-shingle or a tar-paper roof is the best you can afford just now. You ought to do a little figuring. Get all the facts about Oshawa Steel Shingles. You'll find they cost about the same as wood-shingles to put on—then, of course, far less to keep on and keep in perfect condition. Figure cost per year, and Oshawa Steel Shingles are by far the cheapest. That's no mere idle talk, either. I guarantee my roof, remember, which means that its cost NOW is the ONLY cost FOR TWENTY-FIVE YEARS.

## Proof Against Both Fire and Lightning

This alone makes my "Oshawa Steel Shingles" worth more to you than any other kind of roof. Half a million dollars wouldn't cover the damage lightning does to Canadian farm buildings every year—all of which would be saved if these buildings were roofed with my Oshawa Steel Shingles. If there were no other reason for your choice of Oshawa Shingles, this one alone would be enough.

Write to Address Nearest You. Ask for "Roofing Right" Booklet No 16

# The PEDLAR PEOPLE of Oshawa

Established 1861

- |                                |                                      |                             |                               |                               |                                |                              |                            |
|--------------------------------|--------------------------------------|-----------------------------|-------------------------------|-------------------------------|--------------------------------|------------------------------|----------------------------|
| HALIFAX<br>111 Water St.       | ST. JOHN<br>42-44 Prince William St. | QUEBEC<br>127 Rue de la C.  | MONTREAL<br>321 - 323 St. St. | OTTAWA<br>100 - 102 St. St.   | TORONTO<br>100 - 102 St. St.   | LONDON<br>100 - 102 St. St.  | CHATHAM<br>200 King St. W. |
| PORT NEUF<br>100 - 102 St. St. | WINNIPEG<br>76 Lombard St.           | REGINA<br>100 - 102 St. St. | CALGARY<br>100 - 102 St. St.  | EDMONTON<br>100 - 102 St. St. | VANCOUVER<br>100 - 102 St. St. | VICTORIA<br>434 Kingston St. |                            |

WE WANT AGENTS IN 22