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# The Farmer's Advocate

## and Home Magazine

"Persevere and Succeed."

Established  
1866

Vol. XLIII.

REGISTERED IN ACCORDANCE WITH THE COPYRIGHT ACT OF 1876.  
LONDON, ONTARIO, JANUARY 16, 1908.

No. 799.

### EDITORIAL.

#### THE TRAINING OF PUBLIC-SCHOOL TEACHERS.

Correspondence and addresses relating to rural-school education, attach the highest importance to the training of the teacher. This is fundamental. In the main, the character of the work done in the Model and Normal schools determines what follows in the public schools. And if the move for the improvement of the public school is to be effectual, and fair to the agricultural interests of the country, we must look for tangible evidence of it in the institutions where prospective teachers receive their professional equipment.

We recently received from the Department of Education for Ontario the new syllabus of studies for the Normal Schools. Though "The Farmer's Advocate" is not contending for the teaching of agriculture as an art in the public schools, it is significant that, in the whole thirty-three pages of this syllabus, the only mention of agriculture is in a paragraph under School Gardening: "Exercises and lessons showing the use of garden practice and knowledge in the subjects of art, literature, arithmetic, agriculture, etc."

The former syllabus (1903) put agriculture in the list of subjects for examination, and allowed 50 marks for it, besides 200 marks for nature-study and elementary science, out of a total of 3,050 marks, being one-twelfth of the whole. The new syllabus omits agriculture from the examination list, and allows 150 marks for nature-study and elementary science out of a total of 4,350 marks, being only one-twenty-ninth of the whole.

Under Agriculture, the old syllabus prescribed:

#### 3. AGRICULTURE.

Course.—Parts of the subject that can be profitably taught in public schools.

Method.—Nature-study method of teaching lessons relating to plant life, animal life, forestry, rotation of crops, soil, drainage, weeds, fungus and insect enemies of the farmer.

School Gardens.—Their educational value, preparation and care of.

The only particular notice it receives in the new one is under School Gardens, and is a recommendation that "Rural school teachers should make collections of weeds, weed seeds, economic plants, plant diseases, injurious and beneficial insects."

We learn from a memorandum accompanying the new syllabus that it is in force for the present term, 1907-8, tentatively. Before being adopted for a term of years, certain necessary changes will be made in it to suit the situation next September, together with such modifications as a year's experience of its operation may suggest as desirable. That these, and, we also believe, the equipment of the Normal Schools in the direction of such teaching, should be decidedly important, will be evident to all who have followed the discussion of the subject in these columns, because, unless we are to be surprised with the anomaly of securing the greater result from the lesser cause, this syllabus, on its face, must be regarded as one of retrogression, and not of progress.

Once more let us repeat that "The Farmer's Advocate" does not believe in undertaking to teach agriculture as a subject in the public schools, but it does look for an earnest and thoroughgoing effort to adapt the educational systems of Canada to the country's obvious economic requirements, and it is a discouraging sign that the former injudicious but well-intended effort to in-

roduce the teaching of agriculture should not have been followed up energetically by a whole-souled effort to promote school-gardening and nature study, and by an attempt to qualify school teachers in the Normal Schools to enable them to relate the public-school training to the environment and future requirements of rural pupils. Let us hope for a forward move in September.

#### PUBLIC OWNERSHIP OF PUBLIC UTILITIES.

By a magnificent popular vote, a large circuit of thirteen cities and towns in Western Ontario, from Toronto on the east, to London and St. Thomas on the west, only Ingersoll dissenting, have declared themselves in favor of escaping the grip of the gigantic electric ring, whose tentacles have been stealthily reaching out and securing control of power franchises, electric-railway charters, municipal electric plants, and allied interests. Two years ago, an experienced American journalist predicted that the development of electric energy at Niagara Falls would not mean much of a boon to this Province, because, he said, "experience shows that the price of this power will be little if any lower than that produced by coal. Any difference in the cost of production will go into the pockets of the promoters." He was quite right—only, he reckoned without the Ontario Government's Hydro-Electric Power Commission, which, under the chairmanship of Hon. Adam Beck, has explored the question exhaustively, and put up such a magnificent public-spirited and inspiring fight on behalf of the interests of the people, and especially of posterity, that confidence was won from the outset, politics thrust aside by all but the most hide-bound party newspapers and by a vast majority of voters, and the victory in Toronto of well over three to one, and of an average of nearly three to one in the whole fourteen municipalities, is a more sweeping endorsement than the most sanguine supporters could have expected. It is a splendid triumph for the policy of public ownership of public utilities, which is fast coming to be recognized as the surest means of securing to the people the boon of those natural resources that otherwise fall under aggressive monopolistic control, which exploits them not for the advantage of the many, but for the enrichment of the few. The same spirit which carried the power by-laws has recently manifested itself in another form in Manitoba, where the Provincial Government has just bought out the Bell telephone system in that Province. While there are valid arguments against the public operation of certain public utilities, and while it behooves us not to be over-sanguine, there can be no question as to the wisdom of public ownership and control, and the growth of this idea throughout the civilized world may in time be a lesson to capitalists, that, while entitled to a reasonable reward for enterprise, they must, if they would retain their profitable franchises and privileges, seek profit by sincere and constant desire to promote the public welfare.

The matter of Niagara power compels special interest, because this Province is without coal, and we have to import what we use from a foreign nation, where the supply is fast decreasing, the demand increasing, and the price ever advancing, the more rapidly because under monopolistic control, so that, if hydro-electric power promises benefits for us to-day, it will be vastly more beneficial in the years to come. Had the citizens of the Western Ontario municipalities interested failed to carry the by-laws, it would have been a monumental mistake, and a terrible

crime against posterity. That they stood true to their own interests, is a matter for rejoicing by every one who has at heart the interests of good government and the weal of the people as a whole.

What do the by-laws signify? They mean that the respective councils of these various cities and towns are authorized to raise money for local distribution plants, according to the terms of the proposed contracts with the Hydro-Electric Power Commission for quantities of power for street lighting and other municipal purposes, and for sale to householders, manufacturers, street-railway companies, radial companies, and others who desire it. It is a means of securing light and power practically at cost, for the current is to be paid for on a basis of the amount used. The Commission has made a provisional contract with the Ontario Power Company, a firm of American capitalists developing electric energy at Niagara Falls, Ont., by which it secures the power wholesale at a very low price, and, as the demand from the municipalities increases, contracts may be made with this, and also with the Canadian companies developing electric energy, for further blocks of power. The Commission proposes to distribute this by building a trunk transmission line to Hamilton, Ont.; thence building or buying a spur to Toronto, and a loop or circuit from Hamilton, including Galt, Hespeler, Guelph, Waterloo, New Hamburg, Stratford, St. Marys, London, St. Thomas, Woodstock, Ingersoll and Brantford. The expense of delivering this power will be ultimately borne by the municipalities interested, which now have to assume the obligation of buying or building local distribution plants, or else making business arrangements with some local firm in the business. It is, in effect, a concerted scheme on the part of the Government to assist municipal enterprise, by expert advice, by credit, and by effective negotiation with the power companies. It may be asked what do farmers stand to benefit by the project? Nothing, perhaps, at first, but ultimately the multiplication of radial electric lines will assist rural transportation, and possibly afford means, in time, of tapping the currents for farm purposes. But, leaving these benefits out of consideration, the farmer will benefit indirectly by the gain to the cities and towns. Realizing this great principle, we have patiently borne burdensome tariffs which tax the farmer to promote manufacturing industry, reaping such reflex advantages in the way of local markets and otherwise as accrue from having cities in our midst. Cheap power will assist these industries without imposing any burden on any other class. The harnessing of Niagara will prove an immense economic advantage that will directly or indirectly advantage every class in the community.

The victory for the by-laws is all the more gratifying because the power-ring used all kinds of underhand means to befog the issue, and to intimidate and frighten voters. "The Farmer's Advocate" has been in constant receipt of misleading and falsifying literature over such pseudo names as "The Economic Society" of Ottawa, the "Tax-payers' Union," and other creations of the interests opposed to the by-laws. Undoubtedly, these tactics, insulting as they were to the people's intelligence, helped more than they hindered the by-laws. At any rate, the people of Ontario have stood to their guns in splendid form, and impressed a deep lesson on those who would strangle and prostitute the voice of democracy.

True, there was some honest and sincere opposition to the by-laws in certain quarters. The Toronto News contends that the Hydro-Electric

## THE FARMER'S ADVOCATE AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL IN THE  
DOMINION.

PUBLISHED WEEKLY BY  
THE WILLIAM WELD COMPANY (LIMITED).

JOHN WELD, MANAGER.

AGENTS FOR THE FARMER'S ADVOCATE AND HOME JOURNAL,  
WINNIPEG, MAN.

LONDON (ENGLAND) OFFICE:

W. W. CHAPMAN, Agent, Mowbray House, Norfolk Street,  
London, W. C., England.

1. THE FARMER'S ADVOCATE AND HOME MAGAZINE is published every Thursday. It is impartial and independent of all cliques or parties, handsomely illustrated with original engravings, and furnishes the most practical, reliable and profitable information for farmers, dairymen, gardeners, stockmen and home-makers, of any publication in Canada.
2. TERMS OF SUBSCRIPTION.—In Canada, England, Ireland and Scotland, \$1.50 per year, in advance; \$2.00 per year when not paid in advance. United States, \$2.50 per year; all other countries 12s.; in advance.
3. ADVERTISING RATES.—Single insertion, 25 cents per line, agate. Contract rates furnished on application.
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13. ALL COMMUNICATIONS in reference to any matter connected with this paper should be addressed as below, and not to any individual connected with the paper.

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LONDON, CANADA.

Commission's bargain with the Ontario Power Company involves a breach of faith with the Electrical Development Company, which is controlled by the "electric ring." While this may or may not be technically correct, there is no reason to fear that the Ontario Government will be a party to any scheme to depreciate the legal franchise of any corporation without reasonable and adequate compensation. But, whatever real arguments there may be against the project, as outlined, the literature distributed and the arguments used were designed to appeal, not to the people's intelligence and fair-mindedness, but to their ignorance, prejudice and timidity. The reply is a well-deserved and stinging rebuke. The long-overridden citizen has found champions at last, and is coming into his own. This is the people's age.

### STANDS FOR WHAT IS BEST.

In renewing my own subscription, I am pleased to be able to send you two new names. I would like very much to have you send each of them a copy of the Christmas number, if it is not asking too much. As farmers, I think we should all read "The Farmer's Advocate," no matter what branch of farming we are most interested in, and I believe that a goodly number of citizens who are not engaged in our occupation would benefit by its perusal. "The Farmer's Advocate," it seems to me, always stands for that which is best, not only in agriculture, but also in its attitude in political and moral questions which make for a better citizenship. Wishing you a happy and prosperous new year.

Ontario Co., Ont. PETER GILCHRIST.

### WORTH ITS WEIGHT IN GOLD.

Enclosed please find \$1.50 for renewal of "The Farmer's Advocate." I consider it is worth its weight in gold to every farmer. Wishing you a prosperous New Year.

WM. SINCLAIR.

### THE AGRICULTURAL OUTLOOK.

It was with a peculiar glow of pleasure that we perused the manuscript of Mr. Sutton's article, headed, "Rural Conditions Must be Improved." His words of appreciation of "The Farmer's Advocate" were particularly gratifying, because they evince faithful reading, intelligent interest and thoughtful reflection upon the views that have been advanced in our columns during the past months and years. Mr. Sutton must be a student of rural conditions, and his sizing-up is fairly comprehensive.

There is, perhaps, in his letter, a vein of pessimism as to the prospect of bringing about those changes in the farmer's estate which we are all agreed in demanding. This is scarcely surprising, in view of the chronic national habit of regarding the farmer as a man to be exploited, and farming as an occupation to get away from. So long have these notions prevailed, and so fertile are the beneficiaries of our tariff and subsidy systems in monopolizing natural resources, and devising means, direct and indirect, for their own aggrandizement, at the expense of the great producing agricultural class, that it is no wonder if some of us despair, at times, of ever seeing the farmer given a square deal. "The Farmer's Advocate" has no desire to disguise facts, to paint agriculture more glowingly than it deserves, or to exaggerate the prospects for its advancement in favor among our young people. We realize fully that there is a peculiar gloss and glare about city life, as well as certain more estimable privileges, that render it seductively alluring to all except the more level-headed and reflective young men and women. Hence, it is doubly important that our rural-school education be so conceived as to awaken an interest in and understanding of the scientific, the romantic and the pleasurable phases of the occupation of farming, in order that they may not become weighed down with a sense of its drudgery, but, while fully cognizant of its stern realities and drawbacks, that they may perceive its compensations, and be stimulated and enabled to minimize the disadvantages, by bringing as many intellectual and social privileges into the farm home as it is possible to secure. Our correspondent is right in asserting that Canadian farm boys and girls must be liberally educated so as to hold their own with any other class, but it is only proper and healthy that they should be educated in such a way as to quicken an interest in agriculture, instead of dulling what they have and exciting their ambition solely in the direction of city pursuits. The suggestion that public-school inspectors should devote a portion of their visits to lectures calculated to inspire, instruct and enthuse the pupils about things pertaining to the country and the farm, is highly commendable, indeed. Incidentally, they might point out that it is as easy to live on three or four hundred dollars a year in the country as on a thousand dollars in a city like Toronto or Montreal.

For the man who likes a free and comparatively natural mode of living, close to Nature's heart, who likes to feel that he can stand upright before God and man, knowing that he is a producer of wealth, instead of a parasite living on the greed, the cupidity or the innocence of his fellow man (as not a few business and professional men do); who knows that when he applies enterprise to his business it is not for the primary purpose of rivalling a competitor, but that it adds directly to the sum-total of man's well-being; who likes to feel free to assert and exercise his manhood, and rear a family to a high standard of industry, principle, health, and, above all, to high-minded, virtuous manhood and womanhood—for the man who prizes these privileges, the farm must ever hold strong inducements, and just in proportion as we modify our rural education, so as to give our pupils sane ideas of things, they will come to appreciate the advantages of the farm, and the rural population will include an ever-increasing proportion of those who farm, not from necessity, but from choice. As their example and influence become more generally felt, improvement of rural conditions will gain headway, and increase with cumulative force. There never was and never will be an eddying boom in the promotion of agriculture, but we are encour-

aged to believe that conditions are steadily improving, and will improve much faster once we get at the main root of the difficulty, which is our incomplete, unbalanced and irrational rural education.

### RURAL CONDITIONS MUST BE FURTHER IMPROVED.

Editor "The Farmer's Advocate":

I think the editorial department of "The Farmer's Advocate" was never better conducted than at the present time. More power to your pen! Your fight for agricultural teaching in the schools is worthy of every encouragement. If the theory is put into practical operation, it may have a great influence in creating and maintaining a taste for the pursuit of agriculture as a profession among the pupils of our schools. I, for one, hope so. Under present conditions, it seems uphill work to make farming and country life general sufficiently attractive to keep the young people on the farm, to say nothing of inducing any considerable proportion of the urban population to choose farming as a profession. The amount of hard, dirty, disagreeable, and apparently never-ending work, which, in spite of improved methods, will require to be done on a farm, always is a potent reason, in the minds of the young people, for choosing some other more congenial occupation. As I remember reading once, in one of our most conservative and reasonable journals, it has always been so, from the beginning to the present; while people can make a living in town, the majority will choose town life, where, for the strong and capable, the brightest prizes are to be obtained. The young people of the country, influenced by what they see of the city, and by the conspicuous success of the young men from the country, sometimes their former neighbors, whom they cannot but know had no more natural ability than they themselves, feel that what man, has done man can do, and see no reason why they, too, should not win the financial success, the social recognition, and all the pleasures, luxuries and opportunities for cultivation which follow success in the city. The number who fail, they won't consider, feeling within themselves that they have, as compared with the city youths, generally greater physical, mental and moral stamina, and consequently greater chances of success. Besides that, I am afraid there is no use trying to deny that, even for those who are only very moderately successful, the perfection and cheapening of modern appliances has brought within their reach conveniences and comforts which even those who are conspicuously successful in the country can scarcely hope to obtain, if they live at any great distance from the city. All this only has its natural effect, whether it is best for the country as a whole or not.

But what we do want in the country (for those of us who remain from necessity, strong love of nature, or independence, or other cause) is a fair chance. We want as small a percentage of protection in the tariff arrangement as is necessary to enable our manufacturers to get along, and no more. We want that element in the protective tariff which would build up and enrich the cities at the expense of the country done away with. As agriculture is the greatest industry in the country, if Government money is to be spent in encouraging industries, we want an amount spent in the encouragement of agriculture proportionate to its importance. We want money spent on roads, and as prizes for good-roads competitions; incidentally, we want the automobile nuisance stopped. We want prizes, and plenty of them, and at regular intervals, for the cleanest and best-kept farms. We want cheap money for municipal and private land draining. We want and must, if possible, have better, cheaper and more prompt transportation and delivery of goods and produce. As an instance, a very much larger and more profitable trade could be done in the Northwest Provinces with Ontario fruit but for the uncertainty in delivery. We need cars specially planned for the carrying of fruit in the winter. Our Government should investigate the probabilities of profitable trade being done with any other country in the world in any line of products, report upon the same, and, where necessary, provide the facilities for trade being done.

We want, wherever possible and reasonable, rural-mail delivery, and either Government telephones or arrangements with private companies, by which every individual in the more thickly settled rural parts of the country will have the opportunity of having telephone connection in his house. The two conveniences alone would prove among the most powerful counter-attractions to city life among those brought up in the country; and the delivery of the mails would be followed in natural course by some plan for keeping country roads open in the winter, when they are closed by being blocked with snow, and prove one of the greatest causes of the isolation complained of in the country.

Our Government has done something, and will

still require to do more, in preventing combinations from preying in an unscrupulous manner upon farmers and other consumers and producers. As "The Farmer's Advocate" said, the amount of profits made by a large pork-packing company during the last few years was an eye-opener, and was probably only one instance.

The Government can still give much assistance in the newer parts of the country, in bringing in improved stock; and, in the older parts, by dint of liberal special prizes for improved stock, and by removing all obstructions to and providing every possible facility for the bringing in of cheap feed, it can do much to encourage the stock-raising and stock-improving industry.

Above all, everything possible should be done to give every child in the country as good a schooling in all helpful and practical lines as the Educational Department and the child's parents can afford. This is necessary, so that the farmer may respect himself and his calling, and not take a back seat among the members of any other profession. The kind of work he does, whether dirty or clean, is of no significance. "A man's a man for a' that," and "A gentleman's a gentleman for a' that."

With regard to the special course which is occasioning so much discussion at the present time, I believe every county inspector should be an enthusiast on agriculture, besides having agricultural training, and, in his semi-annual visits to the country schools, he should devote a much longer time—at least half of the whole—to examining, inspiring, instructing and enthusing the pupils on plant-growth, live stock, fruit culture, tree ornamentation, and the decoration of homes, etc. Let one of them, who is alive to his subject, try a lecture of that kind for a couple of hours before a school of country pupils, and see if it don't strike fire.

I will close by saying, Mr. Editor, that, whether time will show that you are playing a losing game in your attempt to raise the standard of country life, and bring about conditions which will make rural life sufficiently attractive to induce the people to stay on the land, we, the farmers of Ontario, feel that you, at least, and all on "The Farmer's Advocate" staff, are genuinely loyal to all the agricultural interests of this Province and country. When we want an "advocate," we feel that we have one who will as jealously watch the interests of the agricultural community as if they were his own. May you have a happy and prosperous New Year.

Durham Co., Ont. R. S. SUTTON.

**A LIBERAL VIEW ON THE AUTOMOBILE QUESTION.**

Editor "The Farmer's Advocate":

Perhaps one of the most interesting subjects being considered by farmers throughout the country at present is the automobile question. Many farmers, or, more particularly, farmers' wives and daughters, have come to look upon autos as an unmitigated evil, and their only thought is to try to have them legislated out of existence. I presume it is but history repeating itself, as every new idea, as applied to our advanced civilization, is looked upon as an intrusion on established customs, thereby incurring enmity and indignation. However, we cannot afford to be over-critical in the matter of the automobile, for, while to-day they may be considered the luxury of the few, I believe the day is not far distant when they will become a necessity with every up-to-date farmer, as well as business man. Trade is more and more becoming centralized in large towns and cities, and to-day, much more than formerly, our best farmers travel long distances in order to do business in these large centers, and more and more the city and the country are becoming allied in business, as well as in pleasure; and, in the near future, the farmer one hundred miles from the city will be able to carry his produce to these large industrial centers by means of this new application of motor-power, and soon it will be as common among farmers as it is to-day in the cities. I am aware that many horses do not take kindly to automobiles at first, but they soon become accustomed to them and do not mind them at all. Horses used or driven in the cities have no fear of them, and even in the rural districts, where they are only seen occasionally, horses very soon meet or pass them without trouble, and even the most nervous horse may very easily be controlled by putting something over his eyes until safely past. Now, sir, allow me to offer a suggestion to my fellow farmers. Let us, instead of trying to get legislation for the purpose of restricting the use and usefulness of the automobile, rather propose to take the auto fraternity into partnership with us, and endeavor to interest them in helping us to build better roads. There is not a man who owns an auto but would be willing to pay a road tax of ten dollars a year, to be applied to road improvement (and that is more than the average farmer pays for the same purpose), having the money spent in the county in which the auto is used. We ought to be progressive along all

lines, and avoid anything that would be retrograde in its action, remembering that the most up-to-date appliances and greatest luxuries can be utilized and enjoyed as much by the present-day farmer as by any other citizen of this great country. I trust that we may all be reasonable in the consideration of this great public matter.

York Co., Ont. W. H. SMITH.

**HORSES.**

**LAMENESS IN HORSES.**

**SIDEBONE.**

Sidebone is a very common disease in heavy horses, and occasionally met with in the lighter breeds. It is usually seen on the fore feet, rarely on the hind, and, when present on hind feet, seldom causes lameness. In order to understand the nature of the disease, it is necessary to have an intelligent idea of the anatomy of the part. The bone of the foot (the os pedis) presents, on the posterior part of the upper border, on each side, a projection of bone, called the wings of the os pedis. Each of these, in health, is surmounted by an irregularly quadrangular-shaped plate of cartilage, called the lateral cartilage. These are firmly attached to the wings and project upwards above the hoof at each heel. These cartilages can be readily felt above the heels in the healthy foot, and their outlines can be easily followed by manipulation with the fingers. They are quite elastic, and yield readily to pressure, but immediately regain their normal position when pressure is relieved. One cartilage being on each side, the space between them is filled with soft structures. When the weight of the animal is placed upon the foot, the pressure of the frog from below upwards, and the weight of the body from above downwards tends to expand these soft tissues, and the cartilages, being elastic, will spread outwards and allow of this expansion, and when the weight is taken off the foot they spring inwards to their normal position. Sidebone is that condition in which these cartilages are altered in structure, enlarged in size, and ultimately converted into bone. The conversion into bone is not sudden; the cartilages gradually increase in thickness, and become hard and less elastic. The conversion into bone is usually somewhat slow, and sometimes not complete. In some cases the anterior portion, and in some cases the posterior portion, first ossifies, but usually the process continues until complete ossification is established, when they become thoroughly hard and unyielding, hence there can be no expansion of the space between them when weight is put upon the foot, and the forcing of increased amount of soft structures into this unenlargable space at each step of the animal tends to cause more or less irritation and inflammation of the tissues, and consequent lameness.

The predisposition to sidebone is undoubtedly hereditary. Williams says: "High-heeled shoes are usually the exciting cause, first, because the shock received by the heels when the foot comes to the ground is transmitted to the cartilages;

second, because the pressure upon the heels is unnatural and excessive, the frog being prevented from bearing its proper proportion; third, because they are pulled inwards and downwards by the sensitive frog being pressed downwards, while its horny covering, being removed from the ground, forms no column of support."

While there may be a great deal of force in the above arguments, we frequently see sidebone in horses that have never worn high-heeled shoes, but whose frogs have been always allowed to perform their proper function by coming in contact with the ground.

Symptoms.—The formation of sidebone is usually slow, and often unaccompanied by symptoms other than the gradual enlargement and hardening of the cartilages, which, in hairy-legged horses, is not noticeable to the eye. In many cases, especially in heavy horses, no lameness is noticeable, even when ossification is complete; but, as lameness is liable to occur at any time, the presence of sidebone must be looked upon as an unsoundness. In horses used for fast work on hard roads, lameness is mostly always present when sidebone exists on the fore feet, but when the hind feet are the seat there is seldom lameness. In clean-limbed horses, the presence of sidebone can readily be detected by the eye by the visible enlargement over the heels. They usually exist in pairs, but it is not rare to notice but one. Many claim that the trouble may occur from an injury, as a tread or blow upon the cartilage. It is possible an injury of this nature might excite sufficient inflammatory action to cause ossification of a cartilage, and where but one sidebone is present we may be justified in giving the horse the benefit of the doubt, and not condemning him as unsound; but where there is a pair on one foot, or one on each foot, we must decide that they arose from other causes than accident. In examining the heavier classes of horses, especially those with hairy legs, it is necessary to feel for sidebones, as they may be present and cannot be seen on account of hair; and their presence should disqualify a horse from winning in the show-ring, or prevent a man from purchasing, except at a considerably reduced price. The action of a horse with sidebone, while in many cases not amounting to lameness, will be noticed to lack that elasticity which is so essential.

Treatment is often unsatisfactory. Little good results from blistering or other modes of counter-irritation. The diseased structures cannot be reconverted into cartilage, nor the space between them enlarged. Excision of the ossified cartilages has been practiced, but the results have not been encouraging. In cases where the lameness is severe, neurotomy may be performed (by which the nerve supply to the part is removed, and the lameness cured), but this is an operation that should be avoided, unless the animal be practically useless from lameness. In most cases the lameness is not severe, and the animal performs slow work with reasonable satisfaction; hence, it is usually advisable to avoid fast work on hard roads, and adopt no treatment.

"WHIP."



Dispensing Supplies.

## A FAIR FIELD FOR ALL BREEDS.

Many men have many minds, and doubtless it will be so to the end of time. Every once in a while a subscriber complains that a Percheron horse has no show in our columns, while, on the other hand, there are certain Clydesdale men who find fault because we give so much space to the French drafter, and carry the advertisements of Percheron breeders. Verily, it is hard to please all.

"The Farmer's Advocate" is not run in the exclusive interest of any breed, but in the interests of Canadian farmers. That being the case, we do not feel justified in closing either reading or advertising columns to the advocacy of any meritorious class of stock, and we do not believe it is in the interest of the British draft breeds that others should be debarred from the privileges of the paper. History shows that there is nothing so good for a breed as competition. Moreover, it cannot be denied that a good Percheron is a good horse. There are a considerable number of people in Canada who prefer this to other breeds of heavy horses, and who is to say that there are not in this broad Dominion localities where the Percheron is pre-eminently adapted? Those who would sweepingly disclaim his right to consideration are dogmatists and unsafe advisers. Our columns are open, and we expect they always will be open to legitimate claims on behalf of the Percheron horse, both through our editorial and our business pages.

On the other hand, there is this to be said: The Clydesdale has an emphatic lead in Canadian draft-horse popularity, and, by the bulk of evidence, seems best adapted to prevailing climatic, soil and economic conditions in this country. This is a strong reason for his energetic exploitation. Furthermore, it is agreed by every student of breeding problems, that the mixing and crossing of breeds, although occasionally attended with successful results when skilfully performed, is extremely prejudicial to horse interests, taking it as a general policy. Hence, the particular wisdom of urging Canadian farmers to stick to the breed they have. Constancy is a grand virtue, and systematic, persistent grading up with one breed is the best-paying proposition. For us, however, to attempt to dictate to farmers what breeds they should use, would be foolish and futile in the extreme. This is a free country, and every horse must stand on his own bottom.

Finally, we believe all will admit the justification of our policy of catering especially to the interests of the majority of our readers and patrons. The number of our subscribers interested in the Percheron is small, compared to the proportion interested in Clydesdales and Shires, while the amount of money spent in advertising the Clydesdales in our columns far exceeds that spent in promoting any other breed. Under these circumstances, are we not amply justified in devoting the greater part of our space to the exploitation of the British draft breeds?

As explained above, however, the Percheron breeders are offered a fair field, and it is up to them to uphold their breed with money and printer's ink. Communications are always welcome.

## BOILING GRAIN FOR HORSES.

The practice of boiling grain for horses is not so common nowadays as it was formerly. We can remember, some years ago, when grain, especially barley and wheat, were regularly cooked and fed to the working teams. It was considered particularly needful to horses that were working in winter. The practice was, perhaps, commoner in the Old Country than here, but in both it has now fallen into disfavor. In these days, when fed at all, boiled feed is chiefly used for colts, brood mares and stallions. It is also useful to feed once a day to draft horses that are being fitted for exhibitions, or teams which are being prepared for sale. They seem to keep in a thrifty, growing condition, and the coat takes on a gloss and finish which no other feed seems capable of giving it.—[The Farmer's Advocate, Winnipeg, Man.]

## SOON BECAME A NECESSITY.

We took "The Farmer's Advocate" a few months on trial, and it soon became a necessity. We would not be without it now.

King's Co., N. B. GEO. H. STEVENS.

## LIVE STOCK.

## ECONOMICAL FEEDING OF SWINE.

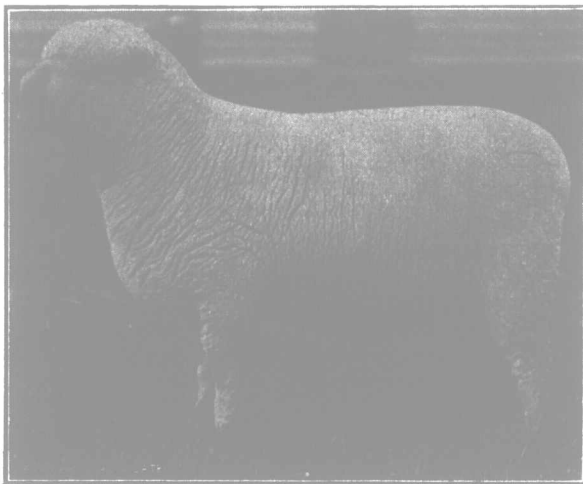
The people of Ontario have been going out of hogs like a flock of sheep over a fence, simply stampeded, said T. H. Mason last month, at the Ontario Winter Fair. Next summer there will be a scarcity.

The first factor in successful feeding is the man, and, while an Irishman is not absolutely essential, the herdsman is better for having some Irish blood in his veins. The feeding of swine is not a chore to be entrusted to the hired man.

Though an advocate of the bacon type of hog, and holding that the thick, short, fat, chunky sort of hog is not the most economical feeder, Mr. Mason pointed out that, in the early days we had an exaggerated idea of what was wanted in the bacon type. The extremely long, coarse-boned, coarse-haired kind of hog is not a profitable feeder; aim for a pig of moderate length. Select a good sire. It is poor policy to pare off a margin of five or ten dollars on the purchase of a boar. The difference in the value of one year's crop of pigs between the get of a good boar and of one not up to the mark may amount to \$100.

In regard to management, he believed a great many farmers lose the profit of feeding at weaning time. They wean their pigs too young. He arranges a creep for his youngsters, and, by the time they are three or four weeks of age he commences feeding a mixture of oil-cake meal, scalded wheat, shorts, and milk. Keep on feeding the sow well, and leave the pigs with her until seven or eight weeks old.

For the summer, he is a strong believer in raising the little pigs out in the open, giving them access to the earth, exercise and green feed. This keeps them always on their feet, and always on their feed. Clover makes an excellent pasture, and, in lieu of clover, a mixture of peas and



Shropshire Shearling Ram.

Winner from prominent English shows in 1907.

oats answers well. For later pasture, rape is excellent. Of course, the grazing hogs should be reasonably well fed on meals at the same time. The meals should be a mixture. What mixture, is largely a matter of quality and market price. During winter months, roots should compose a considerable proportion of the ration for young pigs. Cook the roots and feed warm, especially if the pens are not warm, mixing in shorts or middlings and grain. Do not overfeed. It is a great mistake to allow the troughs to remain partly full of feed. See to it that they are always polished up slick and clean. Keep the pigs' appetites on the sharp side.

The pens should be light, dry, clean, and supplied with dry bedding. Give the pigs wood ashes, charcoal and earth. By all means, give them skim milk if you have it. Nothing lengthens them out like milk.

Q. In the fall, when prices were away up, was the farmer not justified in getting rid of his hogs?

A. No, stay with it. Mr. Mason then recited the case of a man who had been panic-stricken by his neighbors, and got the idea that he was losing money on his hogs. So one day the speaker dropped in, and they went over the swine account together, and found the following figures, expenditure for feed at market valuations: Shorts, \$84.60; corn, \$50; rye, \$42; whey, \$15; pasture, \$15; keep of sows six months, \$40; or a total of \$246.60. The previous week he had received for hogs sold \$199.90, and had 50 well-grown hogs in his pasture, for which he certainly would not take \$50. Mr. Mason was certain he would make a profit, even in the present adverse season, while in the coming year he expects high prices for pork.

## THE FUNCTIONS OF PROTEIN.

During recent years there has been no subject more continuously kept before the American stockman than the economic advantage arising from the judicious, liberal use of available nitrogenous nutrients in the rations of practically all classes of live stock. The agricultural experiment stations agree in emphasizing the importance of protein. Numerous bulletins are available to the farmers of nearly every State, giving the cheapest source of this nutrient and the most advantageous proportions in which it may be had. If, however, we might stop for a sufficient time to inquire into the basic reason for this importance of protein in the ration, we would have more indelibly impressed upon us the imperative need for it by all classes of stock.

In the animal body there are two main classes of compounds, viz., the organic and the inorganic or the mineral. Almost the entire portion of the latter enters into the constitution of the bony framework, a little being found in the blood. The organic compounds constitute the flesh, the fat, the viscera, the vital organs; in fact, all parts of the body other than the skeleton. These organic compounds are readily divisible into two quite distinct classes. These classes are the nitrogenous and the non-nitrogenous. The non-nitrogenous compounds, as the name implies, are those organic compounds which do not contain nitrogen. In the animal body, the principal representatives of this class are the fats, which we readily recognize as tallow, lard or butter. There is another very important though relatively scant non-nitrogenous compound found in the animal, known as glycogen, or animal starch. The nitrogenous compounds constitute from one-third to one-half of the total dry matter of the animal, and are thus seen to be relatively of more importance. They are called proteids. They are characterized by always containing nitrogen, and in an approximately constant per cent., which runs close to sixteen in most of the common proteid rich foods. They are usually very complex compounds, and little is known of their exact chemical constitution. Though these compounds form as large a proportion of the animal body, the animal mechanism cannot produce them from less complex bodies. They are found in both the plant and the animal, but the plant alone possesses the power of elaborating them from the elements, and the animal must obtain them fully wrought in the laboratory of the plant before he can transform them into animal proteids. There is to be found in the sap of plants an intermediate nitrogenous compound which is not as fully organized as the true proteids, and which, consequently, the animal cannot use to the same extent.

Proteid matter is absolutely essential to the continuance of the vital functions. No matter how generously an animal is fed upon a proteid-free diet, the animal cannot live. Starches and fats fed in abundance will not sustain the vital activities; gradually the animal will draw upon the proteid tissue in his body, consuming it to maintain life, until the available supply is exhausted, when the animal will die. Such an animal will die full of fat, but his muscular tissue, though not entirely consumed, will be greatly depleted. In the action of the heart and blood vessels, in the muscular contractions in breathing, and in the various activities, there is demanded a supply of proteids.

The proteids of the food are the sole source of the proteid matter of the animal body. The muscular fibre, which constitutes approximately two-fifths of the dry matter of the animal, can be found only from this source. This is one of the most striking things in the animal economy. Although we find a great interchange of functions among the different kinds of matter in the food, this is one place where substitution cannot take place. Starches in the food may replace in function the fats, and vice versa; the proteids of the food, when in excess, may serve all the functions of the fats or the starches, but neither the fats nor the starches of the food can be substituted for the proteids in this important duty of building nitrogenous tissue. If they are not supplied to the animal in sufficient quantities, the body cannot be built up.

On account of this peculiarity, we find in the animal every possible precaution taken to protect and conserve the proteids of the body. The energy and heat required in daily life by the animal is furnished by the fats and starches, if these are furnished in the food. The animal will not draw upon its nitrogenous tissue until compelled by a too sparse ration; likewise, it will utilize a surplus supply of protein food for heat or for storage of fat. Another striking circumstance is the inability of the animal to store surplus quantities of protein in the body to any great extent. There is in the body, especially in the fluids which permeate every part, a form of protein which is readily available, and which may be slightly but not greatly increased. Practically, this is the only storage of surplus nitrogenous

matter that can take place in the body, and it is very slight.

Heavy protein feeding tends to increase this circulatory protein, which, in turn, seems to stimulate the vital activity of those cells with which it comes in contact. This explains, in part, at least, the greater storage of fat in animals fed carbohydrate rations to which is added a moderate amount of proteids. The storage of the fat requires an activity of the adipose tissue cells, whose foundation is proteid, and the increase in circulatory protein stimulates these cells, insuring a greater action and deposit of fat.

Reviewing the situation, proteids form the greater part of the animal body; they are essential to all the vital activities, even to the storage of fat; they can be formed in the animal body only from true proteids in the food, and are most jealously guarded by the animal itself. As producers of stock, we should work in harmony with our stock, supplying that which they demand, at the time and in the quantities required, stimulating, rather than retarding the animal economy.

J. A. McLEAN,  
Assistant Professor of Animal Husbandry,  
Iowa Agricultural College.

**REGISTRATION OF STOCK-FARM NAMES AND OTHER SUGGESTIONS.**

Editor "The Farmer's Advocate":

In concluding the foreword for 1908, discussing that general utility breed, the Shorthorn, it was stated that there were several other minor matters worthy of discussion, and, we may add, suggestions to make, which—horror of horrors!—might disturb a precedent so dear to ripened minds and mellowed intellects.

The breeder with ideas broad enough to think out his own mating problems, only now and again keeping in mind the advice on the blending of living beings, of those sages, Darwin and Mendel, is often momentarily perplexed when filling out the birth certificate for the breed registrar, to get a suitable name. Someone has said, "What's in a name?" The history of the Shorthorn breed shows there has been a great deal more at times than proved good for the breed. Still, individuals must be labelled to be identified. Registrars and herdbook editors have ideas on these subjects, and prefer short names and the avoidance of duplications. With regard to the latter point, we have arrived at a simple solution long ago, founded and acted upon by our Old Country friends and instructors in the art of breeding and feeding, namely, the use of prefixes or affixes. In Great Britain, the Shorthorn Society and the Shire Horse Society register, for a fee (\$2.50), the name selected, usually that of farm or estate, and no other person may use it for registration in that book. The practice is growing, more prefixes being registered each year than were the previous year, the advantage being that a well-bred animal is so named that his breeder, and no one else, can claim credit for it. We might do well to follow the idea here; in fact, the suggestion only awaits the endorsement of the annual meeting to pass upon it.

Everyone knows that the prefix "Bapton" signifies the place where the animal was bred, and so with "Dunsmore." Are not our Canadian breeding farms equally worthy of a distinctive title? We think so. Whistle Ha' and Maple Shade, in Ontario; Woodmere, Maple Grove, Fairview, Balgreggan, Craigie Mains, and Poplar Park, in the West—all names worthy of perpetuation, as the sole property of their owners; and why not pass a rule that, for a fee of \$1.00, the name shall be registered with the Shorthorn Association, published in the herdbook together with the owner's name, so that none may use it except the one entitled to do so? The scheme is feasible, is justified, would render the naming of the live stock easier, and, as that stock improved and made its impress in the pure-bred stock marts, the prefix would become, as it were, a trademark, and an asset. The duplication of names tends to confusion, and it is the duty of the leaders in live-stock thought to plan so that confusion, unfairness or double-dealing shall be rendered difficult or impossible to carry out.

Secondly, it seems to me that the herdbooks might be made more useful if a list of winning sires were published year by year, and if, with a descriptive footnote of each, how much better; and still more so if a good picture from a half-tone of the grand, senior and junior champions at such big shows as Toronto and Winnipeg were published. At present we find one or two Shorthorn histories on the market, praised for the very fact that these works contain notes on certain bulls. Surely a breed society should preserve in archives of its own to hand down to posterity the records of achievement of its own particular breed. It's a new idea, some say. Oh, no, not a new idea. The Clydesdale Society of Great Britain, the Shire Horse Society of Great Britain are doing it, and doing it well, and the need is far greater here in our own country of magnificent distances, so expensive to travel over, as to en-

der but a limited knowledge of a breed in Canada available to the rank and file of stockmen. Others say we have no precedent for it. Referring to precedents, however, let me mention how one was disturbed, in order to make an improvement: An urbane Westerner floated into the National Records Office a short time since, and asked that genial gentleman, the polished-pated custodian of the breed societies' funds, "Why have the sex printed on the upper left-hand corner of each certificate?" "Why not?" "Well, if ever a certificate is pinned to another document, the pinning is done at the left-hand top corner, and the name cannot be seen; if any value on the certificate, better to have it where it may be seen and made use of?" The Accountant of the National Records being a business man, and not wedded to precedents, made the change.

Thirdly—and here I am reminded that I must avoid any semblance of preaching to my fellow breeders—why not do away with duplicate certificates, or, if to be furnished, to be so only when an affidavit is made by the applicant, that the original certificate has been destroyed? Why not have all transfers endorsed by the Records officers on the backs of certificates? Such a rule would render fraud almost impossible, and that is the duty of the society, as far as human means can devise, to make every pedigree certificate as reliable as Government currency. Some of the more gentle-minded and less suspicious may not think it necessary, but the executive officers of our breed societies and records could tell a different story. All the scalwags are not dead yet; in fact, it is even possible for such to be elected to office in a breed society.

Are there precedents for the suggestions above? Yes, the Clydesdale men have made one, and it is a common-sense business proposition, and, therefore, should be adopted by the Shorthorn Society. One might go on with a fourthly and fifthly, and even further, but we refrain for this time, to let our words sink in and provoke discussion.

HOME-CROFT.



Chancellor's Stamp.

Grade Shorthorn steer; calved Sept. 17th, 1906. First in class under one year, Ontario Winter Fair, Guelph, 1907. Exhibited by Kyle Bros., Ayr, Ont. Sire, Bapton Chancellor (imp.).

**ROOTS FOR HORSE FEEDING.**

The chief value of roots for horses is not their nourishment, so much as their succulence. So far as composition goes, carrots, turnips and mangels, owing largely to their high water content, contain a smaller percentage of nutrients than almost any other food; or, as one writer expresses it, arguing from composition alone, one might place their food value at slightly less than one-third that of wheat straw per pound. The value of roots in animal feeding is not, however, measurable by the quantities of digestible nutrients they contain, but rather through the effect which they have on the digestion and assimilation of the other materials fed, and the action on the excretory organs. A horse subsisting on oat straw will derive from his fodder a larger proportion of nutriment if he is given along with the straw some succulent feed, such as roots. The manner in which a succulent food aids the digestive and assimilative organs to more thoroughly perform their work has never been clearly shown by agricultural chemists, but the fact that they do aid these organs in this work has been recognized by feeders for many years.

For horse feeding, carrots have always been regarded as peculiarly well adapted, although, when fed in large quantities, they are inclined to act too strongly upon the kidneys; but this does not result from moderation, but from excess. While carrots are the horseman's choice, carefully-conducted experiments have indicated that turnips are readily eaten by horses that become ac-

customed to them, and are seemingly quite as valuable in maintaining them in condition. Even mangels may be used, though the other roots are better. One or two carrots or turnips thrown into the manger every day will be sufficient, and it is surprising how efficacious roots are, even in such small quantities, in maintaining thrift and condition. Indeed, a few are nearly as good as a larger quantity, and far better than an excess.

Potatoes have been used in horse feeding to some extent, where other feed was scarce. They may be steamed, lightly mashed, and mixed with cut straw, but they are not so satisfactory as roots.

**THE FARMER AND THE HOG MARKET.**

Editor "The Farmer's Advocate":

I have read a number of articles in your valuable paper in reference to the hog trade. Some of the advice appears to be first-class, while other letters do not come up to that standard. I have been expecting someone with better ability than I possess to criticise some of these matters, but others appear to think that it does not make much difference, or, for some other reason, remain the silent partners in this important business.

From present conditions it would seem as if the packers were sharp in reducing prices to the level of a couple of weeks back, but even if they have to deal with "careless, improvident" farmers, it might some day dawn upon these gentlemen, as able advisers, that the driving is poor. While not rising to the point of advice, but merely as a suggestion, why not have raised the price of the hog that is nearest ideal, instead of simply discriminating against the poor quality the way they did? By so doing they might have induced the raising of better hogs. However, it was with no intent to criticise the packer that I commenced this article, but rather in relation to an article in December 5th issue.

The packers' point of view, whether from a selfish point of view or not, did not seem so hard (to me, at

least) as this article by D. C. Platt & Son. In the first place, instead of 6c. per lb., the farmer in different districts has received \$4.75 per hundred lately. Why this price? How long since that price was offered before? How do prices compare with what was offered when a number of farmers' co-operative packing establishments were in operation? Has the price of hogs struck as high a level and continued so for as long a time this year as last? Last year, as the year before? Or what reason is there that they will this year? These are questions which come (by intuition, shall I say?) to the forgotten-brain fellow.

While there are a great number of successful hog-raisers in this country who can feed hogs and make a good profit above market price of feed, there are others who just clear even—that is, sell their feed for market

price, in the form of hogs. There are a number, and a larger number than one not posted would suppose, to whom hogs are a loss. To the first two the advice found in various sources will be carefully considered, and a great number will hang on even if there is less in it this year than formerly; and it does not appear to be avoidable at the present prices of grains, which were from 25 to 50 per cent. higher than last year. Of course feed is down to what it was, but the hog-feeder depending on boughten feed had to have a good supply on hand. To the latter class, if you are successful at anything else, this is a good year to let up on the hog.

According to the law of nature, effect follows cause, and I could assure Messrs. Platt & Son that there are other causes than the one they mention. There are some in this locality who bought most of the feed for their hogs, and one who is in a good position to judge hog markets and feeds, and who intended feeding about 200 this winter, has none at all. Another, with a small herd, has reduced his brood sows from 13 to 8. Others have not the feed they generally have, or, at least, have had the last few years. Of course, high price for feed and low price of pigs had a considerable influence.

So far as the predictions of the packers goes as regards high prices later and shortage of hogs, you may have that for what it is worth, but if you have cut down the number of hogs don't get excited.

The climax is reached in this article when the farmers are loaded with the sole responsibility. Well, it does seem as if forgetfulness were not as bad as to use one's brain in such a way as that. When did the pages of history in any sphere record a case in which one party was "wholly responsible"? Or have we reached

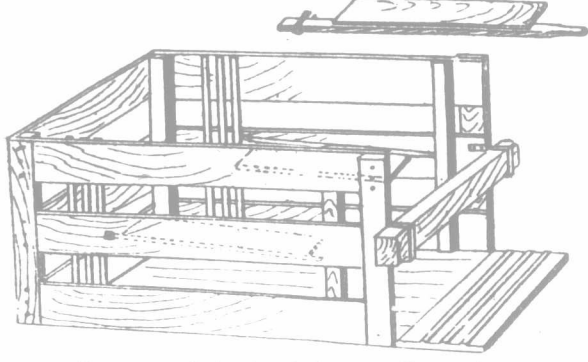
the climax in fair-minded judgment and stepped back to—? Only last winter hog-raisers wanted the packers to discriminate in favor of selects and against others inferior in quality, and it was no uncommon thing to hear such expressions as: "Oh, it doesn't make any difference what kind of hogs I raise—all go at the same price"; "I think I will raise the short, thick hog—they are the easiest feeders." Now a crisis has come, and that is what tells what foundation a thing has got, and the hogs do not come in finished shape as the packer requires. No, Messrs. Platt, the farmer is not wholly to blame, but, of course, as farmers, we will bear a part, but whether it will be the large or small part, we leave each one who cares to know to weigh the evidence as far as obtainable on both sides, and judge accordingly.

S. H. WEBBER.

Huron Co., Ont.

### BREEDING CRATE FOR HOGS.

A breeding crate in which to place sows while being served is almost indispensable, and will be found to save time and trouble as well as to facilitate the service, especially of young or small sows, or, for that matter, sows of any age or size. A breeding crate is built the same as a shipping box, with the top left off, and open at the rear end. It should be four feet ten inches long, two feet wide, and two feet nine inches high. The corner posts had better be two by four, and the side boards six or eight inches wide. The front is closely boarded, and slats are nailed on the inside of the side boards, at intervals of say six inches, near the front end, into which a false front is slid down from the top to shorten the box for small sows. Two iron staples or keepers are nailed on the inside of the rear posts, extending an inch and a half behind the posts, through which staples a 1 x 4-inch slat is run, to keep the sow from backing out. This should be about fourteen inches from the bottom. (The artist has shown this slat too thick.) A platform behind the crate, for the boar to stand upon, is essential in the use of a small boar to large sows, and, indeed, in most cases, irrespective of the size of the sow. This platform may be of two-by-four scantling, with boards



across them, and inch slats on these to prevent slipping of the boar's feet. If it is required to be higher, it can easily be raised by putting pieces under it. The foot rests for the front feet of the boar (shown above the box, and also by dotted lines), to sustain the weight, and to the relief of the sow, is one of the most important parts of the box. In its construction, a piece of strong, tough wood is used, two by two inches, and two feet eight inches long. Round it, at the rear end, to fit into holes in the rear posts; of the holes there should be three, at intervals of say four inches. The front end of the strip should be left square, and fitted into a square staple which goes through the middle side board at the distance of two feet eight inches from the rear post, and is secured by nuts on the outside of the board. On the top of the two-by-two strip you nail a six-inch board, say about four inches shorter than the strip, leaving the strip extending beyond the board at both ends. This board is the foot rest, and also prevents the sow from moving sideways, if it is a small sow. If it is a large sow, and more room is needed, you turn down the side rests, which gives six inches more space. To do this, loosen the nuts on the front staples, pull out the rounded end of the strip, and then change the square of the front end so as to let the shelf fall down. Thumb nuts, such as are used on wagon rods, are handiest for this, since they need no wrench. This crate should stand in a corner of the pigpen, and a short hurdle is handy to guide the sow into the box.

### SALT FOR LICE AND TICKS.

Editor "The Farmer's Advocate":

I have often noticed in your valuable paper good home cures for troubles on the farm. I have found common salt the best cure for lice on all kinds of stock. I rub it into their hair all along the backs on a soft rainy day, and turn them out in the rain, and the salt dissolves and runs all through the hair. I do it when the cattle are stabled in the fall, and three or four times more during the winter. I have done it for about five years, and have had no trouble with lice ever since. It is a sure cure for sheep ticks. I treat them the same as cattle.

S. A. DEWITT.

Durham Co., Ont.

Note: This certainly is a very simple treatment. Have any other readers tried it? Further communications are to be sent to the Editor.

## THE FARM.

### ARTIFICIAL FERTILIZERS.

Editor "The Farmer's Advocate":

When reading R. J. Messenger's statements in "The Farmer's Advocate," the question in mind was, is he an agent selling the fertilizers he so strongly advocates, or is it a case of careless handling of facts and figures? for a more misleading article seldom finds its way into agricultural papers nowadays. I wonder, Mr. Editor, at your allowing it to go unchallenged. I am not going to take up at present but little of your space, as it is quite sufficient, in this day of business thought, with farmers who are stock-raisers, to point out the fictitious values of mangels and turnips Mr. Messenger gives in his reckonings.

In discussing feeds and feeding, for years, in the majority of counties in Ontario, never a man has been heard giving a higher value than six cents per bushel for roots fed on the farm. And, as frequently they can be grown and stored at a cost of three cents per bushel, and, as a rule, cost below five cents to grow and put into cellars, it is evident that, reckoning feeding value at six cents, it is put quite high enough. Besides, it requires careful and systematic management to get as much profit out of feeding six-cents-per-bushel roots as growing them at that price.

It would be very disastrous to Ontario farmers, with the splendid progress made in many counties the past ten years in restoring productive powers to the soil by high-class stock-feeding, were the idea of artificial fertilizers being profitable to use generally allowed to find a place in people's minds.

Mr. Messenger's facts and figures may be quite correct, as given by him, but results are quite different to those we got last season, when used experimentally on barley, oats, mangels and turnips, as well as on grass land.

On the other hand, I do maintain that Mr. Messenger has not, in the past, and cannot this year, make nine cents per bushel on turnips, nor twelve cents out of mangels, fed on the farm to any ordinary stock, be it of ever so good a kind. With such figuring, farmers would, with paper and pencil, make themselves rich just as fast as a man would lift himself to the moon by tugging at his boot-straps.

The condition of many New York State farms should be a warning to us. There, in one small county, their Department of Agriculture reported, recently, 199 deserted farms. The State's Secretary of Agriculture, Hon. James Wilson, counseled the New Yorkers to keep more stock and feed the products of their soil, instead of trusting, as they have for years been, to the use of commercial fertilizers. The use of the latter has been ruinous in many parts. For instance, the once famous Genesee Valley has, in parts where commercial fertilizers have been used for years in growing hay, become so depleted in fertility that no hope of a crop is entertained, unless the aftermath is allowed to rot on the surface; and even with that, the yield is slowly and surely lessening as the years go by. I fancy "too long" is in your mind, Mr. Editor, so, wishing you a peaceful New Year, I close for the present.

Victoria Co., Ont. JOHN CAMPBELL.

[Note.—We are obliged for Mr. Campbell's letter, drawing attention to certain points which Western farmers must needs keep prominently in mind. It is not our present purpose to reply to either Mr. Campbell's letter or the one to which it refers. We merely wish to state that, through an oversight, the names of Mr. Messenger's county and Province were omitted. Suffice to say that he is personally known to at least one member of our staff as an honorable, intelligent and well-educated farmer and fruit-grower in the Annapolis Valley of Nova Scotia, and, without being explicitly informed, we are perfectly satisfied that he has no financial interest in the exploitation of fertilizers. Indeed, it was through the recommendation of our staff that he was chosen by the Potash Syndicate to conduct the experiment in question. More it is unnecessary for us to add, except this, that conditions in Nova Scotia are radically different from those in Ontario. There the springs are late, the soils mostly light, and commercial fertilizers, judiciously employed, produce results such as Ontario farmers rarely or never procure. There has probably never yet been an Ontario Institute worker sent down into the Maritime Provinces who was not "thrown on the fertilizer question." True, there, as here, the results secured vary widely with men and circumstances, but we have every reason to believe that Mr. Messenger obtained precisely the returns stated in his communication, although the valuations for roots certainly do seem high to Western feeders. We shall be glad to hear further from Mr. Messenger, as well as from others who have used fertilizers, and especially those who have used them in comparison with manure.—Editor.]

### SILOS PAST THE EXPERIMENTAL STAGE.

Editor "The Farmer's Advocate":

Your letter to hand re construction and experience with cement silos. My experience has been altogether with wooden silos. As to silage for cheap stock food, it is without doubt the cheapest and best winter food we have. It is past the experimental stage, and does not need argument to prove its value as stock food, bringing summer environments into winter, and halving up the cost of winter feeding, lessening the liability of impact of the rumen and stomach troubles, and doubling the profits.

I have three silos; two are round, 14 feet in diameter and 24 feet high, and one square, with corners cut off, this one 14 x 22, and 24 feet high.

It takes 25 acres of good, fair-crop corn to fill them. My corn was not so good last fall, and it took 30 acres; and, by cutting the straw from spring grain, I feel that I have abundance of feed for my stock, consisting of 40 cows and 40 head of fattening cattle and young stuff, and some for horses and hogs; and there will be plenty if winter lasts six months.

Now, as to building cement, I am indebted to some near-by farmers that have built silos this last year or so. For a silo 14 feet in diameter, it will take about one barrel to the foot, best quality cement, and about one-quarter cord gravel per foot in height. Those that are building have had rings made that join together, and are 2½ feet in height each, and two rings making 5 feet in height per day, requiring a gang of five or six men. Barbed wire is run around in the cement at every ring, and the foundation is one foot thick, tapering to six inches thick at top of silo. I might say that an additional ring, with an extra man, would allow the building of 7½ feet per day, instead of 5 feet with the two rings.

The height here is 30 to 40 feet, the latter height being the better if the stock is large enough to use it, as six or eight feet of silage would put you right through a drought in summer, and would be very profitable if you did not have the drought.

My experience with silos is over the last eight years, and my only regret is that it was not over my lifetime of stock-feeding. The cement is the only perfectly satisfactory silo to build, and much the cheapest in the long run to-day, as a cement silo will last a lifetime if properly put up.

Wishing "The Farmer's Advocate" staff a very prosperous and happy New Year,

Elgin Co., Ont.

EDGAR SILCOX.

## THE DAIRY.

### THE CO-OPERATIVE CHAIN IN DAIRYING.

Second part of an address by Frank Hems, Chief Dairy Instructor in Western Ontario, at the Ontario Provincial Winter Fair, December, 1907.

(Continued from January 9th issue.)

#### STORING ICE.

Thousands of dollars are lost every year by the milk producers of this country by not having plenty of cold water or ice for cooling purposes on the farm. To store ice does not cost very much, and the cost is saved many times over. It is, however, somewhat discouraging for some patrons to store ice and send the milk sweet and cool, while perhaps his neighbor does not feel inclined to do anything of the kind. Here is where co-operation will come in again. Let everyone store ice that possibly can. Use it for putting around the milk cans in hot weather, and I venture to say that the yield of cheese will increase at least five per cent. from the milk produced, and the price increase also from the superior quality that can be made from such milk; the individual returns in cash amounting to a great deal more than the individual cost of storing ice. Milk can be cooled so much more quickly, with less labor and worry. The ice also comes in for other domestic uses on the farm. It will pay to store ice.

#### WHEY TANKS.

If anyone will prove to the entire satisfaction of all concerned that returning ordinary whey in the cans has no harmful effect on the milk supply, then I have nothing to say about whey tanks. But, as yet, I do not think anyone will make that statement. I believe patrons have a right to have clean whey returned in the cans just as well as they have a right to send clean milk. The proper thing to do, no doubt, is not to return any whey in cans, but the practice seems to have gotten a secure hold on the business, and it may not be practicable in many cases to feed the whey at the factory or sell it. Assuming, then, that whey is bound to be returned, and also assuming that if such is the case it would not be practical or profitable to return whey in other cans than those in which the milk is drawn, it then becomes a necessity that this whey be clean. The tanks must be constructed in such a way and of such material that they can readily be kept clean. I believe the whey tanks of Western Ontario, at least, have been kept cleaner this year than ever before, but they are yet, on the whole, a long way from perfection. Patrons who do not wash their cans properly are not co-operating with those who do. I believe every effort should be put forth to educate patrons up to the proper washing of their cans, but I must say

that some of the whey which is sent home makes it almost impossible to properly sterilize the cans with the facilities at hand at the average farmhouse. We hear of large numbers of our cheese developing with age a whey flavor. Now, there is to my mind only two ways by which cheese will develop whey flavor. One is through uncleanliness at the factory, and wrong methods of making, the other is through the medium of the whey tanks. The first trouble is pretty well cleaned up now, consequently I think we are safe in saying that the majority of whey-flavored cheese are due to unclean whey sent home in the cans, and the cans not being properly sterilized. Again, there are certain gassy, yeasty and other flavors that seem to develop readily in old, sour, unclean whey, and there is no doubt that the plant life or bacteria that are the direct cause of these flavors are carried in the patrons' cans and finally become seeded in a great many different places.

Certain flavors due to bacteria may become present on one or more patrons' milk; these are brought to the factory, many times undetected, as they are not far enough advanced; they are not killed in the process of making; they pass into the whey tank, and are widely distributed through the milk cans among the other patrons. Thus, the entire number of cans may become contaminated through the medium of the whey. If not sterilized, their growth readily increases, and becomes present in almost all the cans.

Contamination of cans by whey. To minimize the contamination of the cans by returning whey, it becomes necessary to free the whey from these undesirable germs.

We may clean a whey tank every day, but unless the tank is thoroughly sterilized with live steam it is not clean from a bacteriological standpoint. In the case of wooden tanks, the wood being somewhat porous, will contain a certain amount of germ life impossible to dislodge with ordinary washing.

HEATING WHEY.

If the whey is heated (by the introduction of steam in the tanks) to a temperature of 160° and 165°, and held at that temperature from one to two hours, it should put the whey in a much cleaner condition to go into the patrons' cans. Will it pay?

Ordinary whey will have acidity of about 1% or over, depending upon cleanliness of tanks.

Whey heated to 130°, acidity .5%.

Whey heated to 140°, acidity .45%.

Whey heated to 150°, acidity .4%.

Whey heated to 165°, acidity .25%, or practically sweet. Turn exhaust steam into tank and add sufficient live steam to raise temperature to 165°, and the whey will go into patrons' can at about temperature of 140° in hot weather, if tanks are covered. Steam should be distributed around the tank at bottom.

ADVANTAGES.

- Keeps the whey sweet.
- Gives better feeding value.
- Can be fed to young calves and pigs.
- Keeps the fat in the whey.
- Prevents the fat from rising in the tanks.
- Keeps the tanks cleaner.
- Keeps the cans cleaner and makes them easier to wash.
- Practically kills all bitter, goosy or yeasty flavor, and gas flavors.
- Will inhibit the growth of all germ life.
- Does not have that old, sour, disagreeable flavor that ordinary whey has.
- The cans will last longer.
- Cost about 50c. or 60c. per ton of cheese for factory of 150 tons.
- Cost, about \$75 or \$80.
- With 80 patrons would be about \$1.00 each. A very small cost compared to the benefits secured.
- It will pay to heat the whey from the standpoint of the cans alone, as the sweet whey does not take off tin as does sour whey.
- Kills disease germs.

PATRONS GET THE BENEFIT.

The patrons get nearly all the benefit from having clean whey, consequently, if they will pay their share of \$1.00 or so towards the pasteurization of the whey, I am sure the makers would be willing to take the little time and trouble necessary to make it a success. It will be of no value if only half done. The temperature should not go above 165° or the albumen will separate, and the whey will be slimy.

It will pay to heat the whey from the standpoint of saving in cans alone, to say nothing of lessening the chances of having overripe and tainted milk, which may be due to the effects of unclean whey.

COOL-CURING ROOMS.

Then, again, I think it is generally conceded that cheese cured in up-to-date cool-curing rooms, at temperatures between 56° and 60°, are a great deal finer in texture, flavor and keeping qualities than cheese cured in the ordinary room in hot weather. If all cheese were cured in such cool-curing rooms, thousands of dollars would be saved the patrons in shrinkage in weight alone, to say nothing about the improvement in quality and greater price, and even now the percentage that are curing in cool-curing rooms are having marked effect on the consumption of cheese and on the market. There are sections where a number of cool-curing rooms have been established that are being paid for per lb. more for their cheese than some other sections where cheese are cured in the ordinary hot room. Then, if cool-curing rooms are to be put in, it seems to me that the patrons of factories will have to cooperate with the

owners of factories and with the stockholders of joint-stock factories in helping to bear the expense of these improvements. The patrons are the ones who will reap the greatest benefits, both in the improved quality demanding a higher price, and in the saving in shrinkage, and if they would come together and agree to pay one-half of the expense of putting in cool-curing rooms, I believe hundreds of them would be put in in the near future. This is where a large factory again comes to the front. A factory making 100 tons of cheese usually has about 100 to 125 patrons. A modern cool-curing room will cost about \$600 to \$800. One-half of the expense borne by the patrons would only amount to about \$1 to \$4 each—a very small amount when the benefits to be derived are considered. Even if the patrons bore the whole expense of a modern cool-curing room for curing cheese, the cost to each would not be great. It is the joining together of all concerned that makes the burden light and the final cost of improvements a small item. It will pay to put in cool-curing rooms.

MAKERS' SALARIES.

I believe the cost of producing milk on the average farm has increased during the past few years, owing to increased cost of labor, increased value of feed, and, perhaps, other causes; but I do not think the cost of producing milk has risen by as great a proportion as the cost of manufacturing this milk or cream into cheese or butter. The cheese or butter maker or manufacturer is also up against the problem of increased cost of labor. His supplies have gone up 25%, while his price of making has not gone up, though the price of dairy products has gone up to meet somewhat the increased cost of production. It certainly looks as though the manufacturer should have more for making if he is to continue the improvements required by a more stringent market condition. By the patrons cooperating with the maker and paying him a few cents more per hundred for making, he will be placed in a

getting a little behind, and are not improving your methods as fast as our cheese and butter makers are? I believe the majority of our factorymen are spending all they can afford from year to year in improvements. But let me say this, that if we had palaces for cheese and butter factories, after all, the quality of the cheese and butter would depend to a great extent on the raw material—the milk or cream—and I believe the weakest link in the dairy chain to-day is the quality of the milk.

GARDEN & ORCHARD.

CRANBERRY CULTURE IN MAINE.

Among the industries of the State of Maine which may be classed as profitable to the agriculturist, the growing of small fruits is one of no mean importance. This has formerly included currants, gooseberries, strawberries, raspberries and blackberries. To this list has been added the cultivation of cranberries, and, at no distant date, the propagation of blueberries may be included. Cape Cod cranberry bogs have for a long time furnished much of the product placed on the Maine markets in the fall of the year, and will continue to hold a prominent place in market economy, but Maine is in many sections adapted to the raising of cranberries, and has furnished considerable native fruit from bogs where the only attention the plants have received is the gathering of the berries. The quality of the fruit was fair, and in some cases, where a little attention was given the vines, a marked improvement in both size and quality was noted.

At the annual meeting of the Maine Pomological Society, recently held at Gardner, there was shown a half bushel of cranberries raised on a bog, where special attention was given to cultivating the fruit for market, as a profitable business proposition. A short sketch of methods employed may be of interest to the Canadian public, and show that the care of a cranberry bog is no sine-cure.

The cranberry is one of our native American fruits which has been cultivated and improved, until now it is an important commercial product, and can be raised in any of the northern States where conditions are suitable for its cultivation, the essentials being a level peat bog, good clean sand, near an ample supply of water controlled by a dam and available at all times. A bog where native berries grow will nearly always prove successful.

To set out beds, a ditch must be put around the whole piece, with enough cross ditches to take the water from the beds with dispatch, for so that this can be done when it is necessary to flood for frost, and pick the next day.

All the grass, roots and bushes are taken off, and the beds made perfectly level, after which the whole surface is sanded from three to four inches in depth.

Great care should be used in selecting the plants. The Wellman Cherry cranberry gives satisfaction in Maine, having good keeping qualities, and bringing a good price on the market. An early black variety is marketable about two weeks before the Cherry, but does not keep as well or command as high a price.

The cuttings for setting out a new bog should be taken from good vigorous plants. They should be from 12 to 15 inches long, and placed about ten inches apart in rows 18 inches wide.

While it takes about three years for a bog to come into bearing, once properly started, it will last many years, but its success entails much work and care on the part of the man in charge, and many nights without sleep is his lot.

A frost in June may destroy a large portion of the crop, or the early frosts of the fall damage the fruit, unless the water is turned on when the thermometer drops to the freezing point. There are also insects of various kinds that destroy both berries and vines, making constant watchfulness necessary. In spite of these hindrances, the crop can be grown with profit.



White Rose 2nd 17841.

Ayrshire heifer. Winner of first prize for heifer over thirty-six and under forty-eight months in the two days' milking test at the Ontario Winter Fair, Guelph, Dec., 1907. Record, 95.58 lbs. milk, testing 4.2 per cent. fat. Bred and owned by H. & J. McKee, Norwich, Ont.

position to improve his business, keep his plant in sanitary condition, and keep in the business the best men, who are, undoubtedly, to some extent, going out of the business for reasons already mentioned. This small increase in the price of making will not be felt by the patrons, and they will, undoubtedly, get it back again in improvements made from the maker's end of the business.

IMPROVEMENT OF FACTORIES.

There are 280 cheese and butter factories in Western Ontario, and this year they spent \$52,834.00 in improving their buildings and equipment, and taking the past five years, over \$250,000 has been spent by factory owners and joint-stock companies of Western Ontario in trying to put their factories in a better condition. As much and more has been spent in Eastern Ontario.

Our makers are spending money and time in attending dairy schools, and the majority of them are doing everything they can to fit themselves for their business and improving their methods. The Departments of Agriculture of both Dominion and Provincial Governments are spending money in furthering improved transportation for dairy products, in getting better cold-storage facilities, employing expert instructors, and doing everything in their power to advance the dairy industry. I would like to ask the patrons of our cheese factories and creameries, Are you living up to your opportunities? Are you doing what you can to improve the quality of the milk or of the cream? Or, must you confess, some of you at least, that you are



Harvesting begins about the 10th of September, and lasts from 10 to 15 days. Cape Cod pickers can be used on plants that are well established, but new beds have to be hand-picked, that no damage may be done by uprooting the plants.

The berries must be put into ventilated crates made of slats, packed so that there is a circulation of air around them all the time, and placed in houses built for the purpose. Before shipping, they should be run through a separator, which takes out all the dirt and many of the poor berries, the remainder being picked out by hand from a sorting table.

From a bog ten acres in area, which has been under cultivation some twenty years, as high as 500 barrels have been shipped in a single year to the Boston and New York markets, where their color, flavor and keeping qualities have been mentioned with favor.

MARY B. AIKEN.

### A VALUABLE NEW CHERRY.

After such a season as we experienced in 1907, it is a pleasure indeed to know that a variety of cherry was able to put out its bloom, produce fruit, and survive the frosts of late spring, so far north as Winnipeg.

Last year, a crop of cherries was raised at the St. Charles nurseries by Mr. D. W. Buchanan, which, for size, flavor, hardness and yield, can scarcely be equalled in any of the exclusive fruit-growing areas. The bushes, for it is a bush cherry, are native to North Dakota, and seedlings were obtained from there. When brought north and grown under cultivation, the fruit attained a size a little larger than the ordinary cherry, and withstood frosts when in bloom that killed the common wild cherry. The most adverse condition was that ten degrees of frost came just when the bloom was on the tree, and no one could well conceive of more adverse weather afterwards. Mr. Buchanan is to be complimented upon his success with this hardy cherry, and the country will appreciate his efforts to give it a fruit that seems to be adapted to our soil and climate. We can speak enthusiastically of the preserving qualities of the new cherry, as, through the courtesy of the Buchanan Nurseries Co., we have had the pleasure of a jar of the fruit.—[The Farmer's Advocate and Home Journal, of Winnipeg.]

## APIARY.

### CO-OPERATION ADVANTAGES AND PROPOSED METHOD.

Editor "The Farmer's Advocate":

Your editorial upon the subject, "Co-operation in Marketing Honey," is most timely, and opens up the way for a few remarks and suggestions. There are two phases of this question which present themselves to my mind. One is, What will the advantages be of co-operation? The other is, How shall the work be carried on?

#### RESULTANT ADVANTAGES.

These may be divided into direct and indirect. As to the direct advantages, my views upon that question may vary somewhat from those generally found in the mind of people unused to shouldering commercial risks. A co-operative society practically becomes a merchant for the sale of honey, who assumes all the responsibility and risks that an ordinary commercial house—such as fire, risks in transit, freight charges, cost of finding a market, fluctuations in price (from the time, if any, that he could ordinarily dispose of his goods until he sells them under the co-operative plan), bad debts and the like, less the expense of any step which is cut out, or the risk as to length of time, which is lessened by the application of the co-operative method.

The producer in the co-operative society practically refuses to sell as an individual at the highest price which he may individually be able to obtain for his product.

Of course, there are many not sufficiently posted to know where they can buy at the lowest figure or sell at the highest. Such a one gains most by the co-operative system.

Without being egotistical—I do not consider myself among the latter class—but in viewing this question we should look at it from the standpoint of the greatest good to the greatest number, and from that standpoint alone I should strongly advocate it. But in the end, in my estimation, all will benefit—yes, even the consumer, for he will have a better and more uniform article, and the people will use more honey.

The producer can distribute—particularly to distant and especially foreign markets—at less expense, and we can get up advertising matter, to be displayed in stores, drawing attention to honey and its merits. Shrewd

business men of long experience find such methods advantageous. Honey, unlike many of these articles of food, is a name common to all, and co-operation makes it possible to do in this respect what the individual cannot afford.

Co-operative selling will result in greater uniformity of price. People do not willingly sell their goods at an unnecessarily low price. It is lack of information and inability in their estimation to do better which leads to it.

#### INDIRECT BENEFITS.

The indirect benefits to be derived from co-operation must be marked. Co-operation in marketing must result in better methods of production, and greater uniformity in methods of production. Those producing good honey will not ally themselves with those not producing a good article, and no association of beekeepers will prosper unless there be very rigid regulations as to methods which shall be uniform, to the extent that a good product shall result, however divergent the implements and systems may be.

Honey must be well ripened, and the comb must be in its grades of uniform weight and quality.

The association stamp must be a guarantee that the contents are just as represented, and the longer the co-operation is in existence, the stronger the faith in its seal. The retailer and the consumer must know this.

Co-operation once established will well-nigh be forced upon the individual, as also will better methods of production, and this will lead to greater demand for honey—just as people will use more butter when they get it uniformly good, instead of in the olden days, when creameries were not in existence. We are not yet in the creamery and cheese-factory stage of development in beekeeping.

#### PLAN OF OPERATION.

Whilst I would be open for any better method of procedure, I would, as a beginning, outline the following plan:

Let the Ontario Beekeepers' Association, after receiving all the help that can be suggested through "The Farmer's Advocate" and other sources, outline a plan. Let them submit the rules which shall be used in order to secure uniformity of product in extracted as well as comb honey. Let the association get up a design of label, trade-mark and advertising matter, which can be used by every co-operative association with which it is affiliated, and let these then be supplied to these associations at cost price. Then let one or more counties, as they may see fit, co-operate in marketing, giving the advertising matter the mark of their own society; let a committee be appointed which shall make grades, judge the product from samples sent by the producer, putting each grade in its proper place, and let the committee do the business necessary to carry out the scheme. In all the plans let there be a method, by means of which the product (say by number and date) may always be traced back to the individual who produced it, and that he shall give a guarantee, consenting to pay so much of a fine for every hundred lbs. of honey sent out by him not as good as to quality as his representations to the committee, the samples to be kept for reference by the committee.

Brant Co., Ont.

R. F. HOLTERMANN.

## POULTRY.

### POULTRY FATTENING IN ENGLAND FORTY YEARS AGO.

Editor "The Farmer's Advocate":

In a parish called Heathfield, in the County of Sussex, is the center of the poultry fattening for the London market, through which something like \$12,000 is received from Leadenhall and Smithfield poultry wholesale market every week, and distributed among the farmers of Kent and Sussex at that time. But now the business has extended to other counties, and twice trebled in returns. The average price obtained, after all commission and rail charges are paid, is about 64 cents for a chicken weighing from 4 to 4½ lbs. dressed, but not drawn. For the same weight of chicken, there is a quite equal demand in Toronto and Hamilton, at the same or even better prices. In the Old Country, it is carried on in a practical way. A fatter generally rents a small farm of from 5 to 50 or 100 acres. Where I was raised, there were only 16 acres, and on this land were kept 4 milking cows, 2 or 3 young calves, and one Welsh pony, to collect the chickens from the breeders. We used to gather from about 16 miles out, and go one round each week, calling on every one once a fortnight. The breeder knows what day the "higgler" (so-called) is coming, and over night all the young chickens are picked from the rest and shut up in coops, 10 or 12 in a lot, for him to pick from. The price is pretty well known. In April it is 84 cents for about six weeks for a chick about 2½ pounds in weight, picked as even as his judgment will allow without weights and scales. Their age for this

weight there is from 12 to 14 weeks old, at that time fed chiefly on ground oats and barley mixed, and some use a portion of cracked corn, or maize. The oats and barley are ground fine, not chopped. The meal would all pass through a No. 9 sieve—that is, one with 81 holes in a square inch—ground with the husk left in, but sifted and taken out for the smallest young ones, when first hatched, by a No. 14 sieve, or one with 150 holes to the square inch. This closer sifting makes quite a different sample. The meal is mixed to a crumbly paste, like peas, with a few crumbs in. All the breeders try their utmost to get some early chicks, as on it depends much of the returns for the year. The breeders try, if possible, to have some ready every time the "higgler" calls. Mostly, the "higgler" has a few places fairly close together, as some of these men have had their rounds for many years, and go, wet or dry. And the "higglers" are owners of some of the best horses born, strong enough to draw a load in a cart at a trot. By the time he gets home, after calling on all his places, he has, more or less, from 200 to 300 chickens, and has been, all told, from 30 to 60 miles. This is an underestimate, as the writer has done this many times, and has paid to the breeders from \$175 to \$180.

The next week he goes another round, altogether a different way, and spends a like amount. Later in the summer he gets more chickens for the same amount of money, as in the middle of May the price is lowered 6 cents per chick per week, which is 12 cents to each breeder every fortnightly round. As soon as the "higgler" arrives home, a place or shed has been prepared for the reception of these fresh-from-the-farm chickens, where they have had an unlimited run, and are as healthy as can be. Great care is needed to keep them going to their death, which is mostly in from 21 to 28 days. The sheds are built long, some 100 feet long, and from 8 to 10 feet wide, and the same in height. The fattening pens are put on each side of the building, which are each one 4 feet long and 17 inches wide, with round-slat bottoms 2½ inches apart running the length of the coop, which is divided into three compartments, with upright staffs 2½ inches apart for them to put their heads through to eat from a trough, V-shaped, and hung to pen with strong string, with a slide to each department for entrance and exit. The latter is performed quickly if the slide is left up by attendant. After the chickens are all taken from the crates in the cart, they are put in the pens (6 in a place in early summer, and 5 when they get larger, in the fall), and not much notice is taken of them for a day or two, as they are wild and flutter about, but, instead, the troughs are filled with a mixture of barley and oatmeal, as before mentioned, mixed with water, only fairly stiff. A feeder used to this, holds a pail on his knee, and walks along quite fast and fills the V-shaped trough with a flat stir and round handle, and lets them abide. As soon as all is quiet, they begin, first one, then another, to put their heads through and take a little, till all is consumed; and, in about two days' time they will eat and fill their crops. As soon as they do, half skim milk and half water is used to make the oat and barley meal—not chop, mind—the right thickness, which is much like the porridge we eat ourselves for breakfast, only not boiled. By the end of a week, all skim milk is used to mix the meal with, and also a handful or two of chopped suet, beef or mutton, to a pea size, is added to an American lard pail full of food, and fed. By this time they begin, when fed right, to eat most ravenously, and are fed twice per day only, morning and night, being filled, but not overfed. In hot weather, some water may be given at noon, and some sharp grit, and at the end of every two weeks we used to give every chick a crum or two and slack feed them, to make them eat some to the end. But the feeding machine has entirely altered the old system. Forty years ago we used to be making crams all day, and cramming or feeding every one by hand night and morning. The chicks would take from 8 to 12 pieces of paste apiece, every one being dipped in melted grease before being put in the mouth of the chick. As the three or four last days of their life they won't eat anything, then it is it takes the time. More suet is used the last week, up to 8 pounds per dozen; some take more than others. From the 20th to the 28th day they are killed by dislocating the neck, without drawing blood, and plucked and stubbed with the skin not broken. They look white, and weigh from four to five pounds, and sell for \$1.25, sometimes \$1.50, and are called Surrey capons. A chick taken from the ground is no comparison to one confined and crate-fed. Three times a week the manure is all taken from under the pens, and fresh mould is sprinkled, to keep it as fresh as possible. All the sun and daylight possible are let in on them.

PRACTICAL FARMER.

Attention is drawn to the fact that the American Standard of Perfection has been erroneously advertised in our book list as being \$1.00 postpaid. It should be \$1.00 through this office, postpaid.

THE FARM BULLETIN.

DISCUSSES THE HOG- FEEDING QUESTION.

Editor "The Farmer's Advocate":

I was rather amused upon reading the letter of J. C. T. in your issue of December 26th, at the onslaught he was making on an article of Prof. Day's on the hog question. Although I consider J. C. T. put up a rather "lame" argument against the Professor's view of the matter, yet, no doubt, his criticising will be rather looked upon with favor by perhaps nine out of ten farmers at the present time. I must say that this matter which Prof. Day brought before the rural public should be the means of checking to a certain extent the marketing of breeding stock, which is reported being done. One thing he neglected to explain to the farmers was that there will in all probability be another panic, in perhaps less than a year, when hogs will be soaring high, and likely grain will be what it used to be. In order to make a profit out of hogs, or any other live stock, one must stay with it through thick and thin, and grade up to a standard of perfection, rather than go out of a certain line just because the market is low for a few months. Even at 4½c. per lb., according to the figures set forth by Prof. Day, a farmer realizes an average price for his grain, etc., and then he is not selling what means fertility off his farm, to the same extent as he does when he sells his grain. Now, 4½c. is below the average, 6c. per lb. being nearer the mark. I must ask J. C. T., since he condemns the Experimental Farms, if each and every farmer can experiment, or gather results, on about 300 hogs, in order to bring out facts similar to what Prof. Day has done? No, of course not. That's where the Experimental Farms come in; they do work which is impossible for the average farmer to perform to the same perfection, and yet what a large majority of farmers deem those farms an unnecessary luxury and expense. J. C. T. further remarks, where there is one man alone on a 100-acre farm hogs do not receive proper attention. I might say to this, that, in this case, he had better drop the hogs out altogether, for it is during the summer season that hogs can be fed cheapest, as they can be pastured cheaply on rape and clover in summer, and artichokes and other roots in the fall, which will take the place of skim milk, etc., and also of the grain ration to a certain extent. Mill-feed can also be bought cheaper during the summer, which will hardly prove detrimental to the fertility of the soil, and yet farmers claim they can't afford to, although money spent on this is money well invested, and will yield a good interest, so you do not have to sell grain in order to buy mill-feed. There is, no doubt, a little difficulty securing this mill-feed, especially in winter, but this can be overcome largely by buying in bulk, as it will keep in a dry place. Any systematic farmer is well able to feed his stock regularly, excepting on a very odd occasion.

To his next question, I might say that any farmer not having proper buildings had better get his hogs in shape to dispose of earlier in the season; or, better still, go out of hogs altogether. Any ambitious farmer, however short of means he may be, can put up or fix up a building that would answer the purpose for a few years at least. Now, Prof. Day does not say he bought the pigs in question. They are only valued at \$1.50, and even at that price pigs are sold at a profit. There is no doubt farmers' bins are, on the whole, not very full, and I attribute this as one of the chief causes for the present low prices, the reason being that a large number of unfinished hogs and also sows were rushed into the market. Another cause is that there is less pork consumed in December, as poultry, etc., is on the market at that time. Now, I think if a merciful man is merciful to his beast, he would have had his surplus stock disposed of before this, as several months have elapsed since last harvest, and any man with a head must know how much stock he can winter. No doubt, if the market had not dropped, J. C. T. and a few others would have been merciful enough to feed their hogs, even "starvation" rations! Now, take a look back on Prof. Day's table of profits, and see what a man realizes on his grain when hogs sell for 6½c. per lb. If he can realize that at 6½c., what will the result be when he gets from 7c. to 7½c., as the market has reached that figure at times? I must say that hog and poultry raising must be taken largely into consideration when a young man with small capital starts out. The reason for this is that he has to wait too long for "ready money," as it takes at least two years for cattle and horses to bring returns; whereas hogs and poultry, and also sheep, will bring returns within a year. Of course, dairying will bring like returns, but it takes more capital to start with than in the case of hogs and poultry. For a beginner without capital, it would be better for him to start with only a few head of cattle, and let these be either well graded or pure-bred, and also a good brood mare or two, and go principally into hogs and poultry for a few years, until he gets into more cattle and horses, as it is cheaper to raise than to buy even half-grown stock. Of course this fall has been an exception, as now the price of cattle has almost been cut in two. As I have said before, hogs can be raised and finished for the market very cheap on rape and clover pasture, etc., excepting the last week or two, when the ration should be largely grain, in order to avoid soft pork. Where possible, a few acres of artichokes and alfalfa would prove also of great benefit, as once started, such root and clover pasture will not need much further attention. Roots, such as sugar beets, mangels and turnips, will take the place

of clover and rape and other such summer pastures during the winter months. Now, my theory is that a farmer can realize a large price per bushel for his grain, as well as good interest for money invested on mill-feed, when he feeds such to hogs, in conjunction with the above-mentioned pastures, etc. Of course, as I have intimated before, care should be taken in this case to avoid soft pork. As corn has a like effect of producing such, and peas have the opposite, the grain ration should contain a good percentage of peas to offset the bad results obtained otherwise. Hogs on pasture should get a very small ration of grain at the start, and such grain ration gradually enlarged, until the last week or so, when they should be confined to pens and given almost wholly grain. Now, I think such treatment ought to, where a good breed of hogs are kept, bring them up to the 200-lb. mark in seven or eight months, and even less where conditions are most favorable. I will now, in defence of what I have already said about hogs as money-makers, refer you to what "M." of Elgin Co., has to say, in the December 5th issue, one remark being: "A reasonable number of hogs are a necessity on every farm, and as rent-raisers and mortgage-lifters, have a record that is probably unexcelled by any other line of live stock." I also refer you to the first number of the new year, in an article by "Amateur," under heading, "Some Possibilities in Feeding Pigs." See what he realized on grain fed. I think over \$35.00 per ton pretty good. I notice this to be about the same as what Prof. Day realized for hogs sold for the same price, which was \$6.50 per cwt. Also, take note of what "Amateur" realized for his different grains as well. I think every farmer, when possible, should keep similar records, as no doubt some overfeed with grain, trying to get them on the market at six months, which is a mistake, as a great deal of such grain will be wasted in so doing. This is where pasturing has the advantage, as hogs can be carried over a longer period—giving a chance for better development at little extra cost.

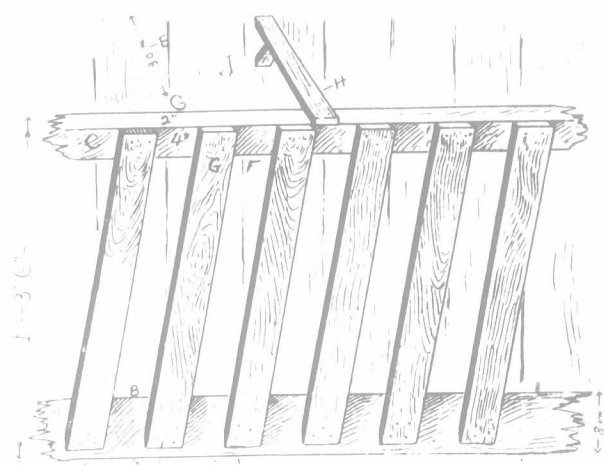
Now, in conclusion, I must say that under present conditions hog-raising and grain selling can hardly be considered at par, but I do not think a farmer would do himself justice to go out of the former, for a change will, in all probability, be shortly at hand. Now, so much on hog-raising, etc., but I wish to ask, before concluding, those, who have not already done so, to keep on file all issues of "The Farmer's Advocate" for at least a year back, as they will be greatly benefited thereby, as has been my experience. You will find by doing so you will reap a benefit far exceeding the price of the paper. Also, that every farmer who reads this paper should ponder over the article on "Farm Management," as set forth by Thos. McMillan, Huron Co., Ont., especially about adopting Western ideas in general agriculture. J. W. Y. Bruce Co., Ont.

A CONVENIENT FEEDING RACK.

Editor "The Farmer's Advocate":

Enclosed is a rough sketch of my feeding rack, which I use in a shed about 30 ft. long. I find this a very handy and economical rack in all ways. The foundation of this rack, you will see, is the bottom beam of my shed. The rack is 3 ft. 6 in. high. It is high enough that the cattle must take their feed from through the spaces and not over.

I took a scantling, 2 x 4, placed it cornerwise, thereby giving a straight edge from side of scantling to beam, giving me this straight edge on which to nail my boards. Spiked this scantling solid in place, and



A, outside of beam; B, inside of beam (distance from A to B, 8 in.); C, scantling set on corner; D, wall of shed; E, width of rack at top 30 in. from D to C; F, width of space for feed, 6 in.; G, width of lumber used in dividing, 6 in.; H, stay used in center of rack; I, height in front, 3 ft. 6 in.; J, height in back is wall of shed.

stayed it to the wall, in center. Next, I took boards five inches wide and placed them along the rack, running them from beam to scantling, six inches apart. Through this space cattle take their feed. Any straw or food which falls on the ground is not trampled or soiled, and can be gathered up for bedding, or even replaced in rack again; thus one has no waste. This rack is a model on a small scale of those used in the Montreal stock-yards. It has given me the greatest of satisfaction. I trust I have made this plain enough to be understood, and that it may be a benefit to others. Carleton Co., Ont. SAMUEL NESBITT.

WINTER FAIR LOCATION.

Editor "The Farmer's Advocate":

Your editorial criticising the writer's letter in your issue of December 26th (?) hardly strengthened the case for Guelph. Our former suggestions were indited after considerable conversation with many men, both breeders and those interested in breeding, men in positions which give them authority to speak on the conditions as they exist, and they have agreed that in Guelph the future of the Winter Fair is more or less limited.

The Provincial Winter Fair should be "The Farmers' Fair" par excellence, and we take exception to your statement that the Royal City is "the all but unanimous choice of the stockmen," and we suggest that the present is an opportune time to have the matter thoroughly discussed in your columns. We contend that if the subject have the light of present circumstances thrown on it a different opinion will be unanimously held.

History proves your assertion, that Guelph succeeded in producing a creditable Winter Fair, and the County of Wellington being able to boast of such men as Col. McRae, Major Hood, Jas. Bowman, the Watts, Stones, Whitelaws, and very many more eminently successful stockmen, we can easily understand that the Fair's success was assured through local support. The experience gained in conducting the Guelph Fat-stock Club must have been of vast assistance, and the proximity of the Agricultural College would naturally have been a considerable element in past success. To-day conditions are materially changed, and there are many men throughout the Province making a success of cattle-feeding. Then when the Winter Fair was on its travel there was no central location so well suited in all respects for the holding of a winter fair as Toronto Junction is to-day. That the cause of agriculture is to be advanced materially by the instrumentality of the Winter Fair in familiarizing farmers with the College and her work, is doubtful. The farmers who frequent Guelph during Fair week are the most advanced in the Province; men who know farming must go hand in hand with science to be a success, and men who are turning more and more to the College for advice. The College has the June excursions to introduce her to the farming community at large, and she is in herself the most up-to-date, complete and best known agricultural college on the continent. Her place is so secure and so generally recognized that her accommodation is taxed to its limits to provide for the attending students. The College doesn't need the Winter Fair, but the Winter Fair no doubt at present benefits by the College being in Guelph.

The Fair is developing largely in the poultry department, but 1907 marked retrogression rather than progression in the exhibits of cattle and swine. Had it not been for the bringing of cattle from the Toronto cattle markets (cattle which, by the way, had just come from the small fat-stock show held in Toronto Junction, on Monday, December 9th), and for a draft from the College stables, the cattle stalls of the Fair would have been decidedly empty. Then, undeniably, with the exception of some half dozen exhibits, the quality of the animals shown was not up to the standard set in former years. Considering these facts, the present appears to be a good time to talk of improvement.

Proximity to the agricultural college alone is not enough to keep the fair at Guelph. The Royal City is not a city with a large transient population living in hotels, and the Winter Fair week would not warrant elaborate hotel improvements. One can hardly see how a city of Guelph's size is to satisfactorily arrange for the accommodation of an increase in the attendance at the fair. The expenditure made on the present buildings was almost a necessity for market purposes for a city like Guelph. In this the city would be the gainer, and would be repaid by having had Government assistance in their erection. Moreover, under present circumstances we can hardly hope to attract continental interest in our fair. We well know that the United States breeders are procuring the best stock in our country. Instead of our breeders sending consignments of stock to be sold at Chicago International, why could we not attract American buyers to our country, and allow Canadians to compete with them in public auction for the best.

When we consider the energy spent in conducting the Winter Fair and the Ontario Horse-breeders' Exhibition, both with the same Secretary-Treasurer, we can realize how easily these shows could be combined, and an Ontario International evolved. No one can refute the wisdom and value of such a step to Ontario live-stock interests, and surely if such a promising proposition were placed before the Government it would meet with earnest consideration.

The writer, though familiar with the conditions at Toronto Junction, has no interest, either directly or indirectly, in the Union Stock-yards, but having had an exhibit in the small fat-stock show held there on December 9th last, and seeing the interest and enthusiasm of the crowd, then going on to Guelph, he realized the gigantic possibilities of a show at the Junction, such as was outlined in our first letter.

We have to hand the prize-lists of the Ontario Horse-breeders' Association Exhibition, to be held a little over two months after the Winter Fair. Does it not seem a little ridiculous that the two shows should not unite? The prospects pointed out would surely indicate a successful show, catering to all classes of breeders and stock-raisers. A farmer visiting such a show could see the results of the best systems of feeding, of not only fat cattle, but of all kinds of farm stock, whether for market or for the stud, and he could hear

through the lecture feature how these results are obtained.

Just as a dangerous surgical operation is often necessary to a healthy continuance of life, so is a radical change necessary for the healthy growth of the Winter Fair. Unlike the surgical operation, which if unsuccessful means death, in the case of the Winter Fair the change simply involves an experiment, which if unsuccessful is at least not harmful, and can be easily rectified by a triumphant return to Guelph. Then we contend that should the change prove a success, it would also prove of ultimate good to the O. A. C. as well. It would be but a run of a couple of hours or less from Guelph, with excellent train service, and the students might make more use of the information obtainable,

since it would be a little harder to gather than at present. Then, perhaps, a trophy might be arranged for, of equal fame to the one so recently won for the O. A. C. by her student judging team at Chicago.

To sum up, we can have a Winter Fair, or Ontario International, of splendid proportions and international reputation, to replace the present Winter Fair as it is to-day. We would have the new fair held in quarters where the viewing of the exhibits would be a pleasure; where ample judging accommodation could be provided; where lectures (in a new auditorium) could be listened to in comfort; where the quantity as well as the quality of the exhibits would be on a par with those at the Chicago International; where a farmer could see as much inside one enclosure as could be accommodated in

four or five such poorly-lighted, abominably-ventilated buildings as are at present at the fair's disposal. All these arguments, together with the advantage of a more central location, convenience to hotels as well as proximity to the camping ground of the buyers of the Canadian markets, are in favor of the change advocated.

Let us, Mr. Editor, have a thorough discussion, from which may spring up the enthusiasm, the co-operation, the esprit de corps necessary to enable the management of such an undertaking to feel that they have the strength of the great farming community of the United Province at their backs.

R. E. GUNN.

Ontario Co., Ont.

## Eastern Dairymen's Convention, at Picton, Prince Edward Co.

"There are over 201,000 farmers in Canada sending milk to cheese factories and creameries. There are, in addition, thousands of farmers who send milk to cities, besides cheesemakers, butter-makers, dairy instructors, proprietors of factories and creameries, buyers and exporters. It is a safe estimate that there are 225,000 people in Canada directly interested in dairying, and that in Ontario alone there are \$175,000,000 invested in cows, lands, factories, apparatus, etc., used for dairying purposes, showing conclusively that the dairy is one of the most important industries of Canada."

This foreword, from the programme of the Eastern Ontario Dairymen's 31st annual convention, conveys but a slight idea of the immense value of the dairying business as one of the leading basic industries of the Dominion.

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The convention this year was held last week, January 8th, 9th and 10th, in the charming town of Picton, county town of the level peninsular county of Prince Edward, noted for its excellent farms, prosperous farmers, flourishing dairy industry, extensive vegetable canneries, and profitable orchards—truly a stable basis of agricultural prosperity. Though not a very large county in superficial area, its output of cheese bulks up to a value above the half-million-dollar mark, while the enterprise of its dairymen is attested by the fact that, out of a total of 36 factories in Eastern Ontario equipped with cool-curing rooms, Prince Edward County boasts 17. Likewise, it leads in the canning industry, with a total of some dozen factories. Though a little out of the way to reach, Picton was an ideal place for the dairymen's convention, which proved a rousing success—in the opinion of many, the best ever held by the Association. The town is of the right size, and the convention, being the event of the week, drew immense crowds. The forenoon and afternoon sessions were held in a local assembly-room called the Parish Hall, with a capacity of some four or five hundred, and at every session but the opening forenoon, standing space was at a premium. The evening sessions were held in the Methodist Church, which seats some 1,200. It was packed both evenings, all standing room being occupied, and hundreds turned away from the doors before the meetings commenced. For this, the local and outside musical talent, the local reception committee, the local press, and the energetic treasurer, J. R. Anderson, deserve considerable credit. In fact, the Town of Picton and the County of Prince Edward did themselves proud. The most refreshing incident of all to one acquainted with the chronic difficulty of securing attendances for agricultural meetings, was the thanks expressed to the Dairymen's Association for the free entertainment provided. Thus is agriculture being popularized to-day.

### PRESIDENT'S ADDRESS.

President John R. Dargavel, M. L. A., of Elgin, Ont., opened his presidential address with a complimentary reference to Hon. Senator Derbyshire, ex-president of the Association; mentioned the progress of the dairy industry in Prince Edward County, and expressed the opinion that in no way could a dairyman close up his year's business better than by attending meetings of this kind, and learning, through the experience of others, of the mistakes he has made; nor could he commence the new year better than by attending the convention, and, through interchange of ideas and experience, form the foundation for a successful business in 1908.

The salient features of the address we quote as follows:

### CONTRACTION OF EXPORTS.

"We regret to say that the dairy season of 1907, as far as the export movement is concerned, has been disappointing, the exports of both butter and cheese showing a marked falling off from those of last year, as well as being considerably short of the average of the past few seasons. The aggregate value of Canadian cheese and butter exports for 1907 will be, in round numbers, about \$23,000,000, against \$29,000,000 for 1906.

"The small make of cheese this past year, compared with previous years, was, no doubt, due to the very late spring and the poor pasturage during the season. Throughout all of Eastern Ontario the season was very backward, owing to the continued cold weather, which retarded the growth of grass. Towards the close of the season the make was also reduced by the cold, wet weather, coupled with the shortage and high prices of food, which is used, at this time, to keep up the flow of milk. Feed was so scarce that many farmers sold some of their stock at a great sacrifice. In our opinion, this state of things could have been remedied.

"Through the Dairy and Cold-storage Commissioner's Branch of the Department of Agriculture, at Ottawa, we have been able to get better carrying facilities, and our cheese have, in consequence, reached their destination in better condition. This, together with the improvement of quality and the shortage of make, has kept the average price of our goods, for the season of 1907, in excess of the previous year.

"The improvement of quality has been brought about by the untiring energies of our chief instructor and sanitary inspector, G. G. Publow, who, with 24 competent men under him, has kept a close surveillance over the sanitary production of the raw material and its skillful manufacture into cheese.

"Among the new lines of dairy work recently inaugurated, was the holding of special dairy meetings in each of the districts represented by the various directors on our board. About twenty of these were held in the months of November and December. The meetings were generally well attended, and the results have been such as to warrant a continuance of this means of carrying information to the patrons in districts that do not come so directly under the influence of these large conventions.

"Another matter which has contributed in a large measure to the improvement in quality of our goods has been the fact that the Government took upon itself the entire cost of instruction and inspection, and, in so doing, saved for the dairymen of Eastern Ontario about \$15,000, and made it possible for our inspectors to reach a large number of poor factories which heretofore had escaped inspection and instruction.

"All these things have combined to make our work of use to the dairymen of the eastern part of this Province, but I am sure that I voice the opinion of each of the directors of this association when I say that, were it not for the liberality of the Department of Agriculture for Ontario, of which the Hon. Nelson Monteith is Minister, this educational work could not be carried on. We appreciate the aid he has given us, and, whilst he has looked well after the varied interests of agriculturists, as a whole, we are pleased to know that the dairy industry of Canada, which takes rank among those of most importance, has not suffered at his hands.

"In conclusion, I am going to predict that, with the short make of this past season, with the markets bare, and with the improved quality, we can fairly hope for increased prices this coming season."

### A BREEZE FROM THE HONORARY PRESIDENT.

Ex-President Dan Derbyshire, or, to give the new title, Hon. Senator Derbyshire, filled out a share of the opening session with a speech in the old, familiar strain, commencing by congratulating the president on the marked ability he had shown in promoting dairy interests, not only locally, but in the Provincial Legislature, and, before concluding, finding words of adulation for both Dominion and Provincial Departments of

Agriculture, as well as all the other authorities whom it is considered good policy to stroke according to the lay of the hair. In the course of his speech he mentioned that the \$60,000,000 less money we got for cheese this year than we should have got, went a long way to account for the financial stringency. The season had been untoward and the spring late, but those farmers who had silage to feed their cows last May, and were, therefore, able to keep them stabled for a while, produced more milk in 1907 than the year before, and kept things going at high tide. We must build more silos, and by every means in our power guard against the conditions that prevailed in 1907. There are many farmers watching the shadows of their cows going into the barn, and trying to fill them up with cold water. What they should do is to get the cows to eat more good food. Then, we want better factories in some sections, but the greatest lack is enthusiastic, educated dairymen. If we only had a bright, wide-awake, progressive dairyman in every home, who would do his part on the farm, visit the factory to see how things were going there, provide the maker with a good factory, and see that he was paid enough so that he might feel in his heart that he was compensated for his labor, that he, too, might catch the spirit of enthusiasm! There are so many patrons who sit around the house, and are not sure where they'll send their milk next year. They want to see if they can't get their milk drawn for nothing to a factory four and a half miles down the road. Such a patron should get to know that he belongs to a certain factory, and stay with it. We must take care of the cattle, and, if pasture is short, help it out with something else. Many patrons sit down, helpless, if it doesn't rain whenever the pastures get short. We must take hold of this feed question and study it the coming year. If we make the dairy output worth \$10,000,000 more in 1908 than it has ever been worth before, there will be no talk of hard times.

### THE FARMER MUST BECOME MORE OF A MANAGER.

Ontario is going to be the manufacturing center of the Dominion, said W. C. Coe, of London. The Americans are going to come over here—in fact, they are coming—and start factories. Canada is bound to grow. We have a good foundation in our country and our people, and we're just starting out to develop. He threw out the suggestion that farmers might use their heads more and leave more of the actual work to others. This idea was followed up by President Dargavel, himself a dairy farmer, who expressed the opinion that a farmer with 200 or 300 acres of land might well afford to give almost his entire attention to the management of his business, employing others to do the work. The man who is working too hard hasn't the energy left to think.

### THE SECRETARY'S REPORT.

About forty years ago (1867) the first Dairymen's Association was organized at Ingersoll, and was known as the Canadian Dairymen's Association, said Secretary R. G. Murphy, in presenting his annual report for 1907. This association held all its meetings in the west (mostly at Ingersoll), and after ten years of successful work it was found necessary to divide the Province into two parts and have two associations, one called the Eastern and one the Western, Yonge St., Toronto, being the dividing line. The first annual convention for the eastern part was held at Belleville, in February, 1878. To-day, on the occasion of our thirty-first annual convention, a comparison of the dairy exports shows that they have increased till they now are five times what they were then. The early work of the association was devoted almost exclusively to educating the cheesemaker, but since the establishment of the Eastern Dairy School, the patron is being instructed regarding the proper selection of a dairy herd, the proper feeding of his cows, their proper care and the proper care of milk. The association has been unusually active during 1907. The sanitary condition of the various cheese and butter factories, as well as the surroundings at the farm, were dealt with, and for the first time the instructors were made sanitary inspectors. The results of their work can be plainly seen all over the eastern section.

The association is now working under the new constitution and by-laws approved by the last annual convention, and later sanctioned by the Minister of Agri-

culture. One of the most important changes was provision for a greater representation upon the board of directors. This necessitated the division of the eastern part of the Province into 18 districts, in each of which a special dairy meeting is held at some point, determined by a committee appointed for that purpose. At these district meetings a representative is selected. At the dairymen in attendance. These selections, approved by the association in annual convention, constitute the board of directors for the ensuing year. This gives a larger directorate than formerly, but the plan has worked very satisfactorily the past year.

The membership for the year was 245. This number is very much less than it should be, for in the territory covered it is considered that there ought to be at least as many thousands as there now are hundreds.

**MAKING BUTTER FROM WHEY.**

A new phase of dairy practice was introduced in a few of the factories of the Brockville district last season, viz., the manufacture of butter from whey, but it has not yet become general, and the association is not prepared to recommend it. They have looked into the matter far enough to be able to say that small cheese factories cannot add a plant and manufacture whey butter at a profit.

**SPREADING THE GOSPEL INTO NEW QUARTERS.**

Between 175 and 180 factories received instruction last year that had never had it before, said G. A. Putnam, Director of Dairy Instruction, and Superintendent of Farmers' Institutes. The change in the system by which the Provincial Department of Agriculture gave all the instructors authority to act as sanitary inspectors, and directed them to visit all factories, abolishing the annual fee heretofore charged by the Dairymen's Association, has worked well, and tended to bring about a more hearty co-operation than ever among patrons, makers and buyers. The reports received have been very favorable to the new plan, though he was satisfied that public opinion would back up the Department in a somewhat more aggressive attitude next year in regard to insisting upon further improvement of the sanitary conditions under which milk is produced and manufactured.

A prominent feature of the departmental work this winter is the sending of speakers, on application, to a good many hundreds of the annual business meetings of the factories, it being stipulated that the speaker thus sent be allowed a favorable opportunity of speaking at least three-quarters of an hour. At these annual meetings, when the patrons' business methods are discussed, there is a large attendance of those who would not attend a meeting called merely for educational purposes, and a vast amount of good is being accomplished in quarters where it is badly needed.

**ADDING A FEW STRINGS TO THE BOW.**

The regular Farmers' Institute meetings are also a valuable means of dairy education, and while in Eastern Ontario it is always arranged to send at least one man who is a dairymen, it is necessary that this work cover a wide field. While dairying is properly the wisdom of combining some other lines with it as adjuncts, and referred to one young farmer in Eastern Ontario, who, after leaving the Agricultural College, went back home and undertook to weed out his cows by churning their cream separately, the Babcock test being not then in vogue. By means of this somewhat laborious method, he succeeded in weeding out his herd, so that in twelve years he had increased the average yield of butter-fat by 100 pounds per cow each year, which meant an increased annual income of \$900 from his herd. He also planted an orchard, and kept seventy-five or eighty head of poultry, and this past year, which was not very favorable for dairying, he probably has made more out of his orchard than out of his cows.

**LOCAL FARMERS' OR DAIRYMEN'S CLUBS.**

As to further improvement of dairy conditions, the people must look to themselves. He urged the delegates not to depend upon the stimulus of one annual convention, but, to form local farmers' or dairymen's clubs, for the discussion among the members of difficulties and problems. Many of the most prominent agriculturists of the Dominion attribute their success in public life to the advantages of such local organizations in their youth. The Provincial Department of Agriculture is issuing a leaflet on the formation of these clubs, which will be free on application. All that is necessary is for some leading spirit in the community to call in his neighbors and organize one. Papers may be read, addresses given, or articles from agricultural journals read to start the discussions. The Women's Institute has grown in three or four years from an annual membership of three thousand to eleven thousand, and their remarkable strength and growth he attributed to the fact that almost from the start they have made a feature of monthly local meetings, conducted by themselves, with comparatively little help in the way of outside talent.

**COWS ABOVE AND BELOW AVERAGE.**

There were, roughly speaking, three times as many co-operative cow-testing associations in 1907 as in 1906, said C. F. Whitley, of the Dairy and Cold-storage Commissioner's Branch. Fifty-two associations, comprising 870 herds, tested over 9,000 cows, and the interest of the co-operators was keener than ever before. At the suggestion of the Department, occasional meetings of members were held to discuss the records of their cows and herds. The cow-testing results, as collated and tabulated, afford opportunity for three distinct lines of

comparison: 1st, comparison of herds in various districts; 2nd, comparison of herds in the same district; and, 3rd, comparison of cows in the same herds. The great object is to afford a study of the individual animals of each herd, and lead to the development of strains of good producers.

He gave a few figures to illustrate the difference among herds in various localities. Taking the average six-month yields of 240 cows in two associations, one in Oxford and one in Victoria County: In the former case the average yield was 4,793 pounds milk and 165.3 lbs. fat, in Victoria it was 2,724 lbs. milk and 99.2 lbs. fat, a difference of 76% in favor of the former. This was not due to better crops, for in this particular section of Victoria County crops last year were good. The trouble was attributed to the fact that they kept a scrub bull. Numerous similar instances could be cited. Over and over again, ten cows have been found doing the work of twenty others.

**THE \$3,500,000 SHORTAGE OF THE POOR COWS.**

The "average" cow is, of course, a mathematical proposition, but taking the records of the 9,000 cows under co-operative test, it was found that in every month practically one-half fall below and one-half exceed the average production of the whole. If of the million cows in Ontario, the poorer half could be brought up to an average yield, their product would add \$13,500,000 more to the value of the dairy output.

Mr. Whitley assured his audience that he was not quoting extreme cases. In many associations each month there were scores of cows yielding 180 pounds less than the average for the association. He then quoted some figures, comparing the poorest and best cows in a representative herd in a 11-months' testing period:

	Lbs. Milk.	Lbs. fat.
13 cows averaged per cow in 11 months.....	3,886	180
The 4 best cows in the herd averaged in 11 months.....	4,562	216
The 4 poorest cows in the herd averaged in 11 months.....	2,721	135
Average difference in yields of best and poorest.....	1,841	81

The average difference in value of products of best and poorest cows, \$26.40.

He had seen a statement somewhere to the effect that some dairymen were content to milk a cow nine times for one cent of profit. No system of farming is complete that does not record profit and loss accounts. Intensive agriculture and dairying, dense population, high development of industry and high development of agriculture and horticulture naturally go hand-in-hand. Close about the outskirts of Paris there are 2,000 acres rented at an average annual rental of \$150 per annum, and there are gardeners there who sell produce to the extent of \$1,000 per acre, not by producing rare crops, but by securing immense yields of ordinary vegetables. On the Island of Jersey, with its 28,000 acres all told, and a trifle of 11,000 acres of arable land, 12,000 head of cattle are maintained. In Canada we have about one cow for thirteen acres.

**NET PROFIT AND TOTAL YIELDS.**

In comparing net profit of cows, it is not fair to consider only cost of feed. We have to consider also the interest on her value, annual depreciation in value, housing and taxes, and cost of caring for her, crediting her with the value of the manure. He submitted the following as a fair basis of calculation:

Interest and taxes.....	\$ 3 50
Depreciation.....	8 00
Interest and taxes on buildings.....	3 50
Cost of care.....	12 00
<b>Total.....</b>	<b>\$27 00</b>

Deducting the value of the manure, this would leave \$21.00. He then called attention to a tabulated comparison of two cows, one good and one average:

Cow No. 1—Total value of product.....	\$99.55
" 2—Total value of product.....	56.85
" 1—Value of product, less cost of feed (\$30.00).....	69.55
" 2—Value of product, less cost of feed (\$30.00).....	26.85
" 1—Value, less feed and other expenses (\$21.00).....	48.55
" 2—Value, less feed and other expenses (\$21.00).....	5.85

In other words, while the difference in total value of product is about 75%, the total net profit of the good cow was 8 3-10 times as large as that of the average cow; or, in other words, to obtain \$1,000 net profit one would need 20 cows like No. 1, or 171 cows like No. 2.

**ALFALFA HAY PRODUCED FOR \$2.00 PER TON.**

For profit in milk production we must have cheap, bulky and succulent feed, and we must also have in the ration a generous proportion of protein, said Henry Glendinning, of Manilla, Ont., in his highly-appreciated address on feeding the dairy cow. Corn silage is cheap, bulky and succulent, and an excellent food for economical milk production; but, in order to get good results, we must use with it some feed high in protein.

In the past we have used wheat bran, but at present prices of \$23 to \$28 per ton (the latter figure being cited by one man in the audience), bran is too expensive, and a substitute must be found. Alfalfa is the ideal substitute. Alfalfa hay contains nearly as large a percentage of protein as bran, the figures being about 11 per cent and 12 per cent., respectively; and the results in feeding substantially accord with the analysis. The question, then, is what does it cost to produce this hay? On his own farm, he is able to raise it for an average of \$2 per ton, allowing an annual rental of \$4 per acre for the land. He submitted figures based upon actual experience. Taking the first cutting of three tons per acre from an eight-acre alfalfa field, he had the following bill of expense:

Rent for one year.....	\$32 00
Cutting (ten hours, man and team).....	3 00
Tedding twice (9 hours).....	2 25
Raking (4 1/2 hours).....	1 15
Cocking and turning out cocks.....	5 00
Hauling (two teams and four men one day).....	8 00
Man in mow (one day).....	1 50
Horse and boy on hay fork.....	1 00
<b>Total.....</b>	<b>\$53 90</b>

Counting in the second and third cuttings (this year's rent having been fully allowed for in the estimate on the first cutting), he had 42 tons of hay produced and put into the mow for \$1.80 a ton; the two-dollar estimate thus allowing a margin of 20c. for contingencies. Now, according to calculations, a daily allowance of 20 lbs. of this hay will contain as much protein as 18 1/2 pounds of bran, or, in other words, a feed of alfalfa hay, costing about 2 cents to produce, will take the place of 19 4-5 cents worth of bran. As to its effectiveness for dairy purposes, on New Year's Day he was in his own stable, and his herdsmen pointed out one Jersey cow which freshened the end of June, and in July gave 28 pounds milk per day. On New Year's Day she gave 25 lbs. This cow's average test of butter-fat, by the way, was 4.4 per cent. in July, while in December it was 5.2 per cent. While the difference in test is not accounted for by the feed, it is noteworthy that the cow yielded more butter at New Year's than on pasture just after freshening in July. This cow's winter ration was corn silage, oat straw, about 15 pounds mangels, and all the alfalfa hay she wanted to eat, with not a bit of grain or bran, except the corn in the silage. It is true this cow is an unusually persistent milker, but the sustained mid-winter yield, on a ration of silage, roots and alfalfa, without grain, is striking proof of the value of alfalfa hay for balancing up a ration of corn silage.

The idea is particularly valuable in Prince Edward County, where large quantities of sweet corn are grown for the canning factories. About two tons of ears per acre sell for \$18, and the balance of ears and stalks may be ensiled and used to excellent advantage, along with alfalfa, for winter production of milk.

**THE UPLIFT OF THE HOME.**

Within the past twenty or thirty years, farming has almost completely changed, said C. C. James, Deputy Minister of Agriculture for Ontario, in his address on Wednesday evening. During this time, agriculture has evolved a science as distinct as that pertaining to any other line of work. It now has its books, its journals, its colleges, with experiment stations for research, its organizations, and numerous facilities for help. But, gradually, we have discovered that instead of the people flocking to these sources of information, it was necessary for the emissaries, the enthusiasts, to go out from the associations and the colleges to the farmer—the case of Mahomet being obliged to go to the mountain. More recently the further discovery has dawned upon us that these influences were reaching only the elderly men and those of mature years, many of whom are past the stage where they can receive the greatest help and stimulus. We have been working over the heads of the young men, whereas the time to mould, educate and direct a person to a calling is in youth, while he is in the educative and pliable condition. In order to make the progress we should in agriculture, we must get hold of the young men and boys.

Finally, we have made another discovery. We have at last perceived that the farmer has a wife and a daughter, whereas we had regarded him as if he were an old bachelor. The home is the center of the farm and of the life of the country, and in nearly every farm home there is a wife and one or two daughters. At last, through our Women's Institute system, we are reaching out to assist them, and the progress of the Farmers' Institutes is nothing compared to the way the Women's Institute work has gone ahead. The farmer's wife and daughters have found out for the first time that, outside of church circles and the old-fashioned sewing bee, there is something coming into their lives that promises hope and progress and help. In this movement he has found an element of hope such as he cannot find in any other organization. It gets into the center of the farm life, and leavens the whole lump. Home life and home work are the matters of most consequence to-day. The church is important, the school is important, but if the home life is neglected we need not expect any of our other organizations or movements to effect their full fruition.

**THE FARMER COMING INTO HIS OWN.**

In the old days, said Hon. Sydney Fisher, Minister of Agriculture for the Dominion, our farmers were disunited, each struggling with his own problems and

assisting one another but little in their solution. The occupation came to be looked upon as hard, and if the farmer couldn't get away from it himself he hoped his sons and daughters could. If, to-day, agriculture has made progress, it has been due to education, organization and investigation.

To-day, in the towns and cities, people are complaining that they have to pay extravagant prices for their food. Eggs, butter, bread, nearly all products have risen, in some cases almost doubled. To those who complained of this, his answer was that he was glad, glad for the farmers, and glad for the whole community. If it be true that the tillers of the soil to-day are getting the best of it, they are only just coming into their rights. In the past, they have had to take the brunt, and received the least for their labor.

But why is it that during the past season butter was higher in Toronto, Ottawa and Montreal than in Old London? During the last generation in Canada and United States there has been a pronounced cityward drift of population, urban population increasing enormously, while rural population made scant, and, in some cases no growth. There are more people in the cities to consume the food, and relatively fewer in the country to produce it. There is another reason: As our people prosper, they are living better. There are more people enjoying luxuries and using necessities more liberally. Then, too, it is a fact that our butter is, as a rule, better than it used to be, and people are eating pounds where they used to eat ounces. This is not only better for the producer, but better for the consumers, who have the better butter to eat.

All that is necessary is for a few more people to turn their attention to the land. In a country like Canada, why should not our brightest and most ambitious young men and women choose an occupation that has so much beauty, so many advantages, and such great scope for ability as agriculture has to-day? True, there is some hard work about it, but a calling that has no hard work is unworthy the ambition of the young men and women of Canada. We want men in this country who have to toil, and thereby develop skill, intelligence and knowledge. Let some of our town people go back to the country, and they will be better off, lead happier lives, and rear better families than they could by remaining in the town.

#### SPARKLES FROM MCGILLICUDDY'S SPEECHES.

Opinions, as well as products, are interchanged at cheese factories, said Thos. McGillicuddy, of the Agricultural Department, Toronto, in one of his pungent and humorous addresses.

A merry heart doeth good like medicine. Ask the doctor if this is so, and he will say yes, and charge you a dollar; I give it to you for nothing.

In district after district the hog farmhouses have quickly changed into brick and stone, because of the advent of cheese factories.

An excuse given by one dairyman for the blue color of the milk was that the cows were fed on blue grass. Another remembered when charged with sending watered milk that the cow's calf had been taken from her that morning and so deeply was she affected that tears were shed profusely into the milk pail.

#### A SEASON'S EXPERIENCE OF THE DAIRY TRADE IN MONTREAL.

Cheesemakers' day was opened by an excellent address by Geo. H. Barr, of the Dairy and Cold-storage Commissioners' Branch, who, during the past summer, was stationed at Montreal as official referee in cases of disputes between buyer and seller as to the grade of cheese bought subject to inspection. Following is his address:

The export trade of butter and cheese from the port of Montreal for 1907 was 2,040,190 packages, valued at \$19,635,541. To receive into the warehouse between twenty and thirty thousand boxes of cheese and between five thousand and eight thousand packages of butter per day requires extensive warehouse accommodation, and to inspect these goods and export between 50,000 and 100,000 boxes of cheese each week requires a splendid system of handling the goods and rapid inspection.

#### TRANSPORTATION FACILITIES.

The condition of the butter and cheese upon arrival in Montreal would indicate that during the hot weather in the summer there should be some system of controlling the temperature on the river boats for both butter and cheese, and a more general use of iced cars for cheese, as many of the cheese arrive in a heated condition, especially when shipped in ordinary box cars.

#### STILL ROOM FOR IMPROVEMENT IN BOXES.

The Government cargo inspectors report very great improvement in the condition of the cheese boxes last year compared with former years. Still there is room for much improvement, as many of them arrive in a broken condition, and, even after being coopered, they present anything but an attractive appearance as they are being loaded on the steamers.

The butter boxes are fairly uniform in style, but they are often not as clean as they should be.

There is room for very great improvement in putting on the factory brands and weights of the cheese. Many of them are indistinct, and put on any old place on the boxes, giving them an untidy appearance. There are still too many pencils used, instead of stencils for marking the weights.

#### WAREHOUSES AT MONTREAL.

There are immense sums of money being spent in equipping the warehouses in Montreal with the most modern storage facilities for butter and cheese.

At some of the warehouses the cheese are put directly from the drays into cool rooms, where the temperature is about 45 degrees. I regret to say that there are still some warehouses where the cheese often stand for days where the temperature is almost as high as outdoors, and the quality is injured considerably. It should be the duty of every salesman to acquaint himself with the facilities each warehouse has for taking care of the cheese properly.

#### UNSATISFACTORY SYSTEM OF INSPECTION.

I am of the opinion that the system of inspecting the cheese and butter, which is generally adopted in the warehouses in Montreal, is not in the best interests of the trade, nor is it as fair to either the buyer or seller as it should be.

All inspection or examination of butter and cheese after it is sold should show, as far as possible, the actual quality of the whole lot. This is impossible under the general practice in the warehouses of testing a percentage of the packages selected at random, and judging the quality of the whole lot by the result of this examination. I believe the inspecting at the present time is done fairly, and as accurately as it is possible under the present system, but it is not done as thoroughly as it should be and can be done, if the factories would adopt a uniform and honest system of marking the cheese from every batch or vat, and the butter from every churning. If this were done, it would then be possible to select one package from each vat or churning, and, when these were examined, an absolutely correct indication of the quality of the whole lot would be obtained, without injury by unnecessary use of the trier. It often happens that the cheese from one vat, or the butter from one churning, is very inferior in quality, while the rest of the shipment is quite up to the standard.

#### NUMBER EACH VAT OR CHURNING.

When the inspection is made under the present method, one or two of these inferior boxes or packages may be in the number examined, and the whole lot is rejected; but if each batch or churning were numbered, the packages representing the inferior batch could be easily set aside, and the reduction in price figured on the actual quantity of inferior butter or cheese, instead of being averaged for the whole lot.

Let me give a couple of instances that happened during the past season.

#### A WHOLE LOT CUT ON ACCOUNT OF ONE CHURNING.

I was called upon to examine a lot of 31 packages of butter, which was rejected on account of the flavor. No fault was found with anything else. A representative of the creamery being present, I asked him to pick out five packages for me to examine. I found two in the five with a strong, leeky flavor, and, of course, put the lot second grade. I said to the creamery man: "It is just possible there is only one churning with that flavor, but we cannot try every package." He found out from the maker that this was the case, and immediately bought a set of rubber stamps, and has numbered every churning since. The merchant made a cut of  $\frac{1}{2}$  c. per lb. on the lot, amounting to \$8.68, which was equal to a little over 3c. per lb. on the five boxes which was wrong in flavor.

The other case was on cheese. Five boxes had been examined, and two were found wrong in flavor. When I went to look at them, I saw the batches were numbered, and asked to see a box of each batch, and found all the batches, but one, fine. The two cheese the inspector found wrong had the same number. The merchant was pleased to know that he had a fine lot of cheese when the five inferior ones were picked out.

I found quite a number of such cases later in the season, when quite a few of the factories in Quebec were marking the batches. The numbers may be put on with  $\frac{1}{2}$ -inch or  $\frac{3}{4}$ -inch rubber stamps, and should be put near the factory brand.

If the cheese is made in two vats at the factory, the first day's make would be 1 and 2, the second day's make 3 and 4, and so on, up to the date of shipment, then commence again with 1. The churnings of butter could be numbered in the same manner.

#### FLAVOR THE COMMONEST DEFECT.

I found the chief defects in the cheese, which I was called upon to examine, as follows: Nearly ninety per cent. not clean in flavor, sixty per cent. open and loose in texture, thirty-three per cent. acid and mealy, twenty-nine per cent. too soft or weak in body, twenty-two per cent. uneven or too pale in color, fifteen per cent. poor finish, mouldy or stained surfaces.

It will be seen that "not clean in flavor" is the chief defect, and is due, no doubt, largely to taints in the milk. Yet quite frequently the flavors appeared to be caused by the use of bad starters and impure water at the factories. There were very few cases where defect in flavor could be described as "food flavors." In the spring a number of lots had a leeky flavor, caused, no doubt, by the cows eating leeks.

Loose and open texture, which is the next greatest defect, appeared to be caused by leaving too much moisture in the curds, either by insufficient cooking, or not stirring the curds sufficiently when the whey is removed, and by salting the curds too soon.

Acid and mealy texture is a very common defect, and is usually due to too much acidity in either the milk or curd, and to the use of too much salt on the curd.

Soft or weak body is a defect very common in the extreme Eastern part of Ontario and some districts in Quebec. Insufficient cooking of the curd, and leaving

an excessive amount of moisture in the curd after the whey is removed, not only gives a soft or weak body, but often injures the color as well.

Quite frequently the color was mottled by mixing in old curd, especially about the time the cows were going out on the grass in the spring, and again in the late fall when they were beginning to get fodder.

#### INFERIOR CHEESE FROM THE SMALL FACTORIES.

The following figures will give a fairly good idea as to the size of the factories which are turning out inferior cheese. In most cases the number of boxes in each lot represents a week's make of cheese.

6.5% of the lots examined contained over 100 boxes.  
93.7% of the lots examined contained under 100 boxes.  
83.3% of the lots examined contained under 70 boxes.  
43.7% of the lots examined contained under 40 boxes.

Bearing in mind that about 98 per cent. of the total lots examined were second and third grade, it will readily be seen that the great majority of our inferior cheese come from small factories. It does not necessarily follow that fine cheese cannot be made in small factories; but it is true that the best men cannot be secured to operate them. It requires men with decidedly greater ability to manage a large business than to manage a small one, and just as long as we have small and poorly-equipped factories, just so long will there be weak or inferior cheesemakers in them, and one of the solutions for doing away with a great many of our second- and third-grade cheese is larger factories, with strong, capable men to operate them.

Now, the defects in our cheese and butter are not so very serious. We are not making a whole lot of third-grade and cull goods, but, as Canadians, we are making too many second-grade goods.

With the splendid system of instruction at the factories and creameries, the dairy schools, the dairy literature, and information distributed by the different governments, dairy papers and dairy meetings, there is no good reason for ignorance regarding any line of our dairy industry.

What we need is that each one, from the boy who brings up the cows from pasture to the man who puts our cheese and butter on board the steamer for Great Britain, shall each do their work in the very best manner. Will you do it?

#### STEAMBOAT TRANSPORT OF CHEESE.

Some discussion followed Mr. Barr's address, in the course of which he emphasized the point that in Prince Edward County, where they have many cool-curing rooms, they should be especially careful in shipping if they wish to derive the full benefit of their cool-curing rooms. He saw some cheese that would have been much better if sent in an iced car than on a river boat, where the temperature is uncontrolled. Relevant to this, the opinion was expressed and concurred in, that carrying the cheese in open wagons and leaving them exposed to the sun while on the docks would do them more harm than any temperature they were liable to suffer during transit. Covered wagons and protection from sun on the docks were essential. A. A. Ayer, cheese merchant of Montreal, said he would rather have the river steamer any day than an ordinary box car, but it certainly was not as good as a refrigerated car. He thought if they would put a few fans in the steamer to ensure ventilation it would be all right. J. A. Ruddick, Dairy and Cold-storage Commissioner, subsequently dissented from this view, claiming that something more than ventilation was needed on the steamer in hot weather. The problem of refrigeration on steamers was rather peculiar, and much more difficult than icing cars, because any space fitted up for any special purpose is in disuse when not required for that particular purpose, and steamer space is somewhat expensive. A special car may be detached and need not be hauled about when unemployed. However, he thought, perhaps, satisfactory arrangements could be made to improve conditions on the river boat.

#### REPORT OF CHIEF DAIRY INSTRUCTOR AND SANITARY INSPECTOR.

##### THE NEW SYSTEM OF INSTRUCTION.

Following is a synopsis of the report of Mr. G. G. Publow, the efficient Chief of Dairy Instruction and Sanitary Inspection for Eastern Ontario. The change in the system of dairy instruction, by which the functions of dairy instruction and sanitary inspection were combined, and the services of the instructors extended to all factories free of charge, enabled the staff last summer to devote as much time as they found necessary at any particular place to make the required improvements. The number of the instruction staff was reduced from 28 to 24, and the territory, comprising all that east of Toronto, and embracing 975 cheese factories, was divided into 24 districts, with about 40 factories in each. Over each district was placed an instructor, whose duties were to visit each factory, see that it was kept in a clean, sanitary condition, and provided with a pure water supply, to give instructions in the manufacture of cheese, and, where necessary, to visit the farms of any patrons who were delivering milk which was found to be out of condition, and to test milk for adulteration where factory men had good grounds for suspicion that the milk was being tampered with. Of the total of 975 factories regularly visited, 178 received instruction for the first time. One thousand five hundred and one full-day visits were made, and 5,022 call visits, making a total of 6,523, or an average of over 6 visits to each factory. Full-day visits are made only at the

request of the maker or factory manager, who is expected to notify his instructor when in trouble and invite him to render assistance.

It was intended at first to visit the farms of all the patrons, but this was found impracticable, as there are 38,583 patrons in the territory, and only those patrons delivering milk out of condition could be visited. As it was, the farms of 3,369 patrons were visited, and many more would have been had it not been that many of the patrons delivered their own milk.

**TROUBLE FROM NOT COOLING THE MILK.**

These visits revealed the fact that 90% of the defective samples were delivered by patrons who gave little or no heed to the cooling of the milk or the sanitary conditions surrounding its production. While there is a general improvement in the condition in which the milk is being delivered at the factories, not more than 50% of the patrons have appliances necessary for efficient cooling during warm weather.

**PAY ACCORDING TO QUALITY.**

The amount of fines imposed for adulteration was \$1,288. This is a disagreeable feature of the instructors' work, of which they should be relieved, as it takes up a great deal of time that could be spent much more profitably. The remedy is to pay according to quality, but as only 95 factories in Eastern Ontario are yet doing so, it will be necessary for a good while to come to give attention to testing for adulteration. Men should be specially appointed to look after the testing and prosecuting, which at present is left in the hands of the factorymen, and as they do not, generally speaking, wish to deal with the matter, many cases go by default.

**FACTORIES IMPROVING; ADVANTAGES OF COOL-CURING ROOMS.**

It is gratifying to be able to report a very marked improvement in the condition of factory buildings and surroundings. On the whole, the factories were never before in such good order. Twenty-nine old factories were displaced by new ones, while 605 made improvements in various ways. The estimated value of the expenditures, including new buildings, was \$153,862, being \$33,874 more than was spent in 1906. With very few exceptions, the factorymen responded readily to the instructors' recommendations. In fact, many of them spent more than the profits from their business would warrant. While a considerable proportion of the money was spent in improving curing-rooms, yet there are only 36 factories that have what are known as cool-curing rooms, and of these 17 are in the Prince Edward County district. Cool-curing rooms make it possible to turn out cheese of superior quality, for which the buyers paid more than ruling prices last season, and, besides, they render the factorymen independent in many ways, especially as to time of sale.

Notwithstanding the more critical inspection by the buyers last season, the May and June make of cheese was reported as the best in the history of the trade, but as soon as the warm weather set in, general complaints were received regarding flavor, texture, and coarseness. The coarseness in texture was largely due to the too heavy salting, the receiving of overripe milk, and the treatment given in its manufacture, the makers in many cases being forced to receive milk of this character, owing to the keen competition of factories.

**THE TROUBLE FROM WHEY TANKS.**

In the districts where the whey was returned in the milk cans from whey tanks that were badly located or not properly cleaned, the greatest number of complaints regarding flavor were received. While I believe the whey tanks to be the most fruitful source of contamination at the factory, it was the one improvement to which we met with more opposition than against all the others asked for. It would appear as though one or two things would have to be insisted on—either the necessary care be given to the tanks to keep them clean or the whey be heated. The latter seems the more effective remedy.

In several factories bad flavor was traced to the water supply. Suspected samples were sent to Dr. Connell, at Kingston, before the factories were put to the expense of securing a new supply.

**SPECIAL DISTRICT AND ANNUAL FACTORY MEETINGS.**

A series of special district meetings have been held, numbering 26, with an average attendance of 130. At each of these a report was given by the local instructor of existing conditions, which were clearly and forcefully discussed, and the meetings should prove a great factor in bringing about improvement another year.

A further means of education, which should prove very effective, was the supplying of speakers to the annual meetings of all factories which make application. Some 200 were attended up to January 1st, and a much larger number were expected to be attended after this date.

**WHEY BUTTER.**

An old idea reintroduced this past season was the skimming of whey and the making of whey butter. At the end of the season some 14 factories were engaged in this work. I think it is well to sound a note of warning regarding this matter, and would advise any person who has not a butter plant in connection with his factory to make no provision for any such work until we have sufficient proof that it will pay to do so. The factories that have been engaged in this work were previously equipped for buttermaking, and have been able to enter into the matter without much extra expense, which may have made it possible to carry on the work with more or less profit. My opinion is that

when the milk is properly cared for and skilfully handled in the manufacture of cheese it will not pay to adopt the practice unless the make is very large. Then there is danger of the cheesemaking being neglected, and also the injury that might come to the reputation of Canadian butter. Should the practice become generally adopted, an act might be required compelling the branding of whey butter.

**ADVICE FROM THE OFFICIAL REFEREE.**

On the whole the cheese were not shipped nearly so green as last year, yet in some districts the instructors were seriously handicapped, owing to the cheese being shipped so soon after being made, and had to be governed to a certain extent by reports from Montreal. In this respect valuable assistance was received from Mr. Barr, who sent weekly reports on the quality of all cheese he was called upon to inspect. From this information the field instructors were kept well posted and defects were promptly remedied, so that it was seldom the same factory would be reported on the rejected list two consecutive weeks.

For Mr. Barr, who was acting as the official referee in Montreal, for the splendid staff of dairy instructors, and for the Executive Committee of the Association, Mr. Publow had words of unstinted praise, to which we may fittingly add the universal testimony to his own tactful, capable and indefatigable efforts as Chief of the Instruction staff.

**DISCUSSION.**

Would it not be well, Mr. Publow was asked, if every patron could draw his own milk for at least a part of the year?—to which he replied that possibly fifty per cent. of all our patrons haul their own milk, principally in the easterly section of Eastern Ontario, and here we get the poorest milk. The trouble is that here we have small factories poorly equipped, and, as a rule, indifferent makers, as they cannot well afford to employ better ones. The curse of the industry is the lack of ability of the makers in some of these small factories.

**CLEANLINESS AND COOLNESS.**

There is a direct relation between the number of bacteria and the cleanliness exercised in milking, said Dr. W. T. Connell, of Queen's University, in his annual address on "Bacteria in relation to dairying." It has been shown many times that the greater the care and cleanliness exercised in securing milk, the fewer bacteria there will be present, and, as a rule, there will be less chance of undesirable forms of bacteria being present. The difference is frequently very marked, even in the same herd under different conditions of care and cleanliness, being in proportion of from 1 to 6 up to 1 to 30 between careful and slovenly methods.

Once in the milk, the rate at which the bacteria multiply depends upon the conditions to which they are subjected. At low temperatures they develop slowly, but the temperature becomes more favorable to them the more nearly it approaches that of our bodies, viz., 98° to 100° F.; hence to prevent such bacterial development it is necessary to cool the milk down to or below 65° F. Cleanliness and coolness epitomize the main teachings of bacteriology in relation to dairy husbandry.

**HINTS FROM THE DAIRY COMMISSIONER.**

Following Dr. Connell's address, J. A. Ruddick, Dairy and Cold-storage Commissioner, was billed to lead an open discussion, though whether the discussion was to be on cows, weather or politics, the delegates were left to surmise. We quote a few of the points:

He approved the idea of marking the cheese, so as to identify all those from each particular vat. In Western Ontario this is the regular practice.

He did not approve the making of whey butter, and pointed out that it was by no means a new idea.

**GREEN CHEESE.**

He had had many object lessons last summer in England as to the importance of having our cheese well cured before being placed before the consumer, otherwise our export trade will be seriously affected. While some of our Montreal merchants have excellent warehouses, where the cheese may be held and the ripening process advanced, others cannot be depended upon to refrain from marketing uncured cheese, and the only way to prevent the marketing of green cheese is for the factorymen to refuse to ship them so promptly from the hoops.

While in the Old Country he visited the Cheddar-cheese district in Somersetshire, and among other experiences he saw one dairyman who always gets 84 shillings per cwt., or 18 cents a pound for his cheese, which are made by what is there called a quick-ripening process, although none of them leave the shelves until ten weeks old. While over England the usual custom is to milk in the stable, in Somersetshire the milking is done out of doors, not in a milking yard, but in the open pasture, free from dust and dirt. Of course these cheeses are well made, but their great special value lies in their flavor. In Canada we have set up a wrong standard; we are satisfied if the cheese are free from bad flavor, but in Somerset they not only have this negative virtue, but have a distinct cheesy flavor, and it is chiefly on this account that a premium of 6 cents a pound was commanded by these special cheese.

**THE REFRIGERATED-CAR SERVICE.**

Re icing cars: The Dominion Department of Agriculture does not operate any of these cars, but merely pays the railroad \$5.00 for the icing of a limited number of cars, say 115 to 120 per week. It is not done by way of a bonus to any section or to any industry,

but as a means of introducing the idea of refrigerated cars, the expectation being that eventually shippers would be willing to bear the expense of icing themselves. The demand for the iced cars, and the interest taken in the subject, indicate that the expectations are being realized.

**IMPROVED ROTATIONS FOR DAIRY FARMING.**

If we want to succeed as a dairy country we must get rid of some of our old notions and practices. We must consider our cattle first and other things afterwards, said J. H. Grisdale, of the Central Exp. Farm. The first condition for successful dairying is ample food for summer and winter; we must have better pastures and better means for supplementing them. In the past we have bent our energies to carrying our cattle through the winter; we must now study how to carry them well through the summer. Cattle roaming through sunlit fields, enduring heat and fighting flies, are not comfortable. The aim of every feeder should be to persuade his cattle to eat all the good food they will, and a primary condition must be economy of production. To this end we must study crop production and systematize our cropping. On the farm, more than in any other industry, it is essential that system prevail. The farmer who does things in a haphazard way cannot make the best success of his business; he cannot make the best use of his feeds.

**ROTATION OF SOILING CROPS.**

In laying out a system of rotation for a dairy farm, Prof. Grisdale advised dividing the farm into two parts, one for the production of pasture and winter feeds, the other near the buildings for raising soiling crops to be used green, to supplement the pasture. For the latter purpose, a farmer with 100 acres of land should set aside 12 or 15, the crops grown thereon to be used green, if required, any excess being used for winter fodder. Divide this portion into three equal fields, say of 5 acres each, and on each of them follow a rotation of clover, corn and peas and oats, reseeded to clover. The corn should be part early and part late, while the grain mixture should be sown at intervals to suit the size and probable needs of the herd. Under this rotation, bringing in clover frequently as it does, little manure will be required, and the soil will improve in condition. Care must be taken that the peas and oats are not allowed to lodge and smother the young clover.

The balance of the farm he would arrange in four equal parts. If preferred, existing fields may be utilized, and the four sections practically equalized by removing or adding a fence or two. Here the rotation would be grain seeded to clover and timothy; next year hay, following year pasture, broken for corn, roots, potatoes, and, if necessary, a little mixed crop the fourth year. This rotation is likewise favorable to soil enrichment. Experiments for ten or fifteen years at Ottawa showed that the first year's growth of clover from a seeding of 12 pounds per acre enriched the soil as much as the addition of ten tons of manure. Q.—Why plow the sod in the spring for corn? Because when the plowing is left till spring, the spring growth of grass furnishes a large amount of vegetable matter in addition to the manure, and this not only provides extra fertility for the corn roots, but, by its fermentation, helps to warm the soil.

**PHILOSOPHY OF ROTATION.**

He then explained briefly the philosophy of his rotation. For crops like corn, roots and fodder, where we want a large growth of leaves and stalks, a soil rich in humus and nitrates is wanted, and inverted sod, manured, is the ideal. For grain, we are not anxious for an excess of humus, but what the crop needs should be in a well-decomposed state. The fine tilth following a hoe crop is excellent preparation for grain. Sowing two consecutive years to grain is not good practice. In a recent experiment they found that by plowing a sod in August, working it well in autumn, and ridging up in the fall, the yield of oats obtained was nearly double that on late fall plowing worked down in spring, and almost twice as good a catch of clover was secured. Grain crops demand a fine state of tilth.

**RESULTS OF SHORT ROTATIONS.**

Rotations of crops are necessary, if good results are to be secured. He cited the case of an abandoned farm taken hold of five years ago by a young man who in the first season was unable to winter twelve cattle and two horses. Last year he wintered thirty cattle and four horses without buying feed. He followed a rotation. In Ontario County is a farm where ten or twelve cows would ordinarily be kept. Some years ago a three-year rotation was adopted. Fifty cattle are kept, besides a large stock of swine, and eight or ten horses, no feed being bought, except some concentrates for the cows.

**GOOD RETURNS FOR LABOR APPLIED TO AGRICULTURE.**

A year ago last fall the speaker had visited farms in many parts of Ontario, studying systems of farming and crop rotation, and the conclusion was forced home that we are not getting out of the land half what we ought. Some interesting data were supplied by a comparison of representative farms devoted to different lines of production. In Western Ontario, in the district of London, was a section of splendid land where practically no labor was applied at all. The young men had gone West, for "goodness knows why," and the fathers moved into the villages. Many of the farms were rented to men who seed them down and graze cattle. These farms usually paid a rental of

\$2.50 to \$3 per acre, and some years the graziers made a profit, and sometimes sustained a loss. We might put the revenue of such a farm at \$300 to \$400 per annum. On another farm, where grain was raised for sale, and a hired man kept in summer, the revenue was \$700 to \$900 per annum per 100 acres, depending upon the season and the price of grain.

On another farm, where no stock was kept in summer, but beef cattle finished in winter, two men were employed in summer and one in winter, and the annual revenue was \$1,500.

On a fourth farm, where pure-bred cattle were kept, the annual revenue amounted to \$2,200 to \$2,400 a year. The fifth farm cited was a dairy farm, where the stock was cows and swine. Three men were employed here the year round, besides the man on the farm, and the revenue was \$4,000. The principle deduced from these illustrations was that the greater the amount of labor judiciously applied, and the better the system of cultivation, the greater the returns. The extra labor was well rewarded.

He cited the case of Mr. Dietrich, of Pennsylvania, who, starting on a fifteen-acre farm near Philadelphia, which at first would not carry two head of cattle and a horse, raised its productiveness by rotation and good methods, till he was able to keep thirty head of cattle and two horses, and sold hay besides. With more labor, more knowledge and better practice, Canadian farmers could easily produce 200 million dollars' worth of dairy products, instead of the 100 millions now constituting our estimated output. There is a great future ahead of this country. We are destined to be a great dairy nation; but one of the prime essentials to this end is better summer feeding of the cows.

#### DAIRY EDUCATION.

Dairy education is that training which enables one to do his dairy work in the best possible manner, said Prof. R. A. Pearson, of Cornell University, Ithaca, N. Y., who, by the way, made one of the most favorable impressions of all the many experts who have come to us from the other side of the boundary. Breezy, cordial and hearty, without palaver or bombast, his remarks struck a true note from the start. The problems of dairy education are similar in both countries. Here, as there, we have a large number of successful dairymen, also a large number of unsuccessful ones, and many on the fence. There are a large number of people who want dairy education, and a large number of people who seem to have conscientious scruples against learning anything. With these, the only thing to do is to wait till they holler, and then stick it in quick. Sooner or later, they always do holler. The number of those who want dairy education is increasing, however, and one of the reasons is competition. In the old days, when transportation was poor, it made little difference to A whether B made cheese better or worse, because B couldn't get his cheese to A's customers. To-day, if A does not turn out the right class of goods, B will take the market from under his feet. We're coming up. The man who knows detail, and works out his knowledge, is going to succeed.

To-day there are liberally-equipped dairy schools all over the United States, and funds provided freely for carrying on the work thereat. At Cornell University there is a dairy building costing \$100,000. Pennsylvania has another costing the same. So they range: Wisconsin, \$80,000; Iowa, \$65,000; Minnesota, \$40,000, and even South Carolina has one costing \$15,000. The great phase of dairy work at these schools is the short-course work. One State reports that 3,000 young men have attended its dairy school since the Chicago Exposition; others, 2,000, 1,200 and 1,000, respectively. The character of the courses is changing yearly. Whereas each student used to be given a fixed programme of study, now they are offered opportunity to specialize in any one of numerous branches.

#### EFFECT OF FEEDING.

There are fifty-five places in the United States where one can go for dairy instruction, also forty State dairy associations, besides the National Dairy office, and a good number of dairy papers. The Farmers' Institutes are introducing innovations, and he was recently at an Institute held in a dairy barn. We must pay more attention to fresh air, comfort and good feeding. He cited an experiment conducted years ago at Cornell, when an ordinary farm herd belonging to a poor feeder was purchased by the station, fed for one year by the owner, then for two years at the College, and then another year by the owner, and careful records kept of production. In the two years at the station, the cows averaged nearly double the yield that they gave in the farmer's hands, besides improving greatly in condition.

#### THE FACTORYMAN IS THE KING PIN.

Then, among the agencies of education are the boards of agriculture and boards of health, but the greatest influence of all is the unorganized force of example. And, of course, the factorymen are of the utmost importance. The makers have it in their hands to do more to uplift dairying than any other force that's working. At Cornell, Dr. Publow (a Canadian, by the way) sets his students at work making cheese from different vats of milk. When it comes to test whey, one sample will test .12 per cent. butter-fat; another, .32 per cent. Same milk in each case, simply a difference of men. The man who is enthusiastic in his work is not the one who complains about drudgery. Prof. Bailey says drudgery is under a man's hat. Get interested. Every factoryman should be an aggressive but modest dairyman, and a center of dairy education. Let him walk ventilation, sanitation, feeding, anything at all leading to better practice.

#### SANITATION AND TUBERCULOSIS.

He cited a tuberculosis experiment with twelve cows, of which eight were sound and four affected with tuberculosis. Four healthy and two diseased ones were put in each stable, and the diseased ones changed back and forth so as to expose each set of healthy cows equally to infection. One stable was light, ventilated and sanitary; the other unsanitary. At the end of seven months, the twelve cows were killed. In the sanitary stable, two of the originally sound cows had contracted the disease, and showed slight affection. In the unsanitary stable, the whole four were in an advanced stage of tuberculosis. It was a difference of stables. Talk cow records, feeding, fertilizers; above all, talk clean milk. Years ago, we knew that cleanliness in the dairy was important. To-day, we know why it is important. It is because dirt, manure, straws, dust contain myriads of bacteria, which get into the milk and work mischief. Bacteria are minute. One would have to be magnified two hundred thousand times to make it six inches long. It is the number of them that makes them troublesome.

#### 1,500,000 BACTERIA ON A FLY.

A Connecticut professor caught 100 flies in his house, and put them in sterilized water; then, by counting and calculation he found that on each fly there were 300,000 bacteria, whereas his wife felt very much ashamed. He went to the cow stable and caught another hundred, on which he found 800,000 bacteria per fly, and his wife felt better; thence to the pigpen, and found flies bearing 1,000,000 bacteria apiece. He then foraged about the swill barrel, and captured flies that averaged 1,500,000 bacteria per fly. A few bacteria are nothing to speak of, but take a million times a million, and you have something. It has been said that civilization is marked by the extent to which science is made a part of our daily lives. So, with this in mind, he urged all to work for the uplift of the dairy industry, always believing that the last wayward brother will be brought into the camp of dairy science and practice at least by the millennium.

#### POINTED ADVICE FROM THE BUYERS.

Addresses were made by A. A. Ayer and H. A. Hodgson, cheese merchants, Montreal. Mr. Ayer remarked that there are but four Montreal houses in the cheese business that were in twenty-five years ago, and only one that was in it forty years ago, and he could count thirty or forty failures in that time. The basis of making good cheese or butter is cleanliness. The remedy for tuberculosis is good stabling, with sunlight and fresh air. He cited one case where a woman was able to keep thirty cows on thirty acres of sandy land. She grew a good deal of corn. He thought the cheese factories were missing a great deal of help by not asking Mr. Barr to examine and criticize their cheese, except occasionally in case of a dispute over the grade. He could give them many suggestions, and the buyers would open their warehouses freely to him. Mr. Ayer was a crank on cool-curing. For ten years, their firm has had cool-curing rooms, and while the cool-cured cheese do not always command a premium in price, there is a big advantage in that their cheese rarely or never go back on them. He recommended that small factories sell their cheese once in two weeks. On behalf of the merchants, he asked the co-operation of factorymen in securing lower freight rates, a better class of bills of lading, better cars, a census of the cows in the Dominion, of butter and cheese production, and a correct return from railways and steamboats of the receipts and distribution of cheese at Montreal.

Mr. Hodgson hoped the Dairymen's Association would legislate against whey butter. He had never seen first-class butter made from whey. Even if it seemed all right on bread, it was pungent when spread on toast, and it will not keep well. Start making whey butter, and the creamery industry will suffer. Leave in the whey what little fat there is, and obtain better returns by feeding it to hogs. As the Hon. Senator says, it will make the pig's tail curl once more.

#### THE PROVINCIAL MINISTER OF AGRICULTURE.

Hon. Nelson Monteith, Provincial Minister of Agriculture, speaking before the overflowing audience on Thursday evening recalled that here was cradled one of our first efforts at municipal government, a system unrivalled in the world. Quality tells in people as well as in food products. This Province has been and must be peopled with a high class of citizens. He sometimes felt that memorials should be planted at nearly every crossroad in old Ontario in honor of our pioneers. In the newer parts of Ontario to-day are pioneer conditions vastly different from and better than those which confronted our forefathers. We have a great unoccupied area of 16 to 20 millions acres of excellent land in the northern part of this Province, which will be thrown open under conditions that will afford favorable chances for the settler, and we want our own sons to settle there. Men of good stock, imbued with our own ideas of freedom, are worth thousands of those with no idea of what freedom means.

The Eastern and Western Dairymen's Associations he looked upon as two of the strongest auxiliary forces working in unison with the Agricultural Department. He paid a warm tribute to the efforts of Messrs. Publow, Mitchell and Hens, and also expressed a sort of paternal interest in the staff instructors driving the back concessions.

The dignity of a calling is its utility. In England, at the Royal Show, he was struck with the interest displayed in agriculture by all in the country, by the King and the aristocracy. We want to bring

about such conditions in Canada that the title "landowner" will stamp him who bears it as a man of affairs, and that manufacturers and others who have attained affluence in the cities will seek the farm. With improved postal, telephone and other facilities, and, before long, he hoped, rural-mail delivery, we may expect that the name of farmer will impress all of us with a sense that his is a comfortable business in which to be engaged. The speaker himself had never yet felt that farming was drudgery. He had come to sympathize with the led or man who has nothing to do. The joy of overcoming obstacles is one of the greatest given to man. Referring to the new system of dairy instruction and sanitary inspection, he owned to some fear, when the plan was decided upon, but was glad it had worked out so well. We would be certainly disloyal if we shrank from doing our duty once we knew it. He concluded with a commendation of the Women's Institutes, and struck a universally responsive chord by saying that it is not enough that our homes be equal to those of any other land. We want them better.

The concluding session of the convention was held on Friday morning, when a discussion of creamery subjects was led by a paper by J. Stonehouse, on "The Creamery Outlook." This, with the discussion, and one or two other articles, we must hold in reserve for later use. Resolutions and officers follow.

#### RESOLUTIONS.

That this convention urge upon the Dominion Government the desirability of taking a census of cattle (cows), and the make of butter and cheese, both in factories and on farms throughout Canada.

That this convention of dairymen would strongly urge upon factorymen the necessity of branding, consecutively, each vat of cheese with a designated number, the same number being placed upon the boxes as upon the cheese, in order that a fair and proper inspection of each shipment of cheese may be made, both by the buyers and the official referee at Montreal.

That we urge upon the Dominion Government the desirability of taking such means as may be necessary to insure correct returns from the railways and boats of the daily receipts and shipments of butter and cheese into and from Montreal, and that the same returns be handed in to the Board of Trade daily.

That this Association desires to express its gratitude to the Hon. Nelson Monteith, Minister of Agriculture for the Province of Ontario, for taking over the entire work of inspection and instruction. We believe that the good results which have followed have fully justified the Government's action.

#### OFFICERS FOR 1908.

The officers of the association for 1908 are practically the same as in the year past: Hon. President, Hon. Daniel Derbyshire; President, J. R. Dargavel, M. P. P.; First Vice-President, Henry Glendinning; Second Vice-President, John H. Singleton; Secretary, R. G. Murphy; Treasurer, James R. Anderson; Auditors, F. W. Brenton and J. A. Kerr. Executive Committee—G. G. Publow, J. R. Dargavel, D. Derbyshire, Henry Glendinning, James Whitton, Edward Kidd, James R. Anderson, T. A. Thompson, J. H. Singleton, R. G. Murphy. Directors—John H. Singleton, Smith's Falls, Renfrew Co.; Neil Fraser, Vankleek Hill, Prescott Co.; Edward Kidd, North Gower, Carleton; John Carscaden, Russell, Russell; John McGregor, Alexandria, Glengarry; Leslie Foster, Newington, Stormont; C. F. Whittaker, North Williamsburg, Dundas; Jas. A. Sander-son, Kemptonville, Grenville; John R. Dargavel, Elgin, Leeds Co.; D. Derbyshire, Brockville, Leeds Co.; T. A. Thompson, Almonte, Lanark; Joseph McGraw, Mount Chesney, Frontenac; W. J. Paul, M.P.P., Tamworth, Lennox and Addington; Jas. Whitton, Wellman's Corners, Hastings; T. B. Carlaw, Warkworth, Northumberland; G. A. Gillespie, Peterborough, Peterborough; Henry Glendinning, Manilla, Ontario, Durham, Victoria, Haliburton; Jas. R. Anderson, Mountain View, Prince Edward; G. G. Publow, Kingston, Ontario; R. G. Murphy, Brockville, Secretary.

#### ONTARIO DEPARTMENT OF AGRICULTURE.

##### FARMERS' INSTITUTES.

Regular winter meetings of the Farmers' Institutes are now on in full force, and being attended by large numbers, who are showing very great interest. Some of the comments made by delegates who attended the November and December meetings of 1907 are very interesting, and extracts are quoted below:

"It was my privilege to attend five meetings in the vicinity of Lindsay, one of the best grain-producing districts in the Province. I was associated with Mr. F. H. Reed, B. S. A., Specialist in Agriculture, and Dr. Annie Backus, who met with the ladies at the Women's Institutes."

"I must say that the meetings were among the most successful I have attended in the Province, both in attendance and interest. The questions relating to the soil, involving grain-growing, drainage and weeds, were mostly the subjects for discussion. It would appear that the day was coming back when local talent would be in great demand, judging from the attitude of fellow farmers in listening to what local men had to say."

"It cannot be denied but that the Farmers' Institute is continuing to do most excellent work, and it should always find a place in our farming economy."

"Farmers now, more than ever, should meet together and discuss not only farm economics, but co-operation in putting the products of the farm on the

world's markets to the very best advantage to both buyers and sellers."

"No doubt the time has come when special subjects of peculiar interest to a locality can best be handled by Farmers' Clubs. Still, I do not believe that the time has come when the Institute system as now organized should be replaced. There is plenty of good work to be accomplished, and if a few enthusiastic farmers in each locality get behind the meetings they are bound to succeed."

"We also found that where there was a good Women's there was generally a good Farmers' Institute."

"I found in discussing the weed question that the perennial sow-thistle is gaining ground rapidly, and the farmers are of the opinion that some legislation is needed to compel the destruction of this weed before it goes to seed. There are careless farmers in every locality, and these are the means by which this weed is spreading. The farmer who is trying to get rid of this weed by cultivation is only making a better bed for the seed from the careless farmer's place, and I feel something should be done to help these farmers get rid of the pest."

"Around Bowmanville this weed is gaining ground so fast that fear is entertained by some who have young orchards that it will choke and starve out their trees."

"After an absence of nearly two years from regular Institute work in Ontario, I attended a few meetings with a feeling of curiosity. I wondered if it was true, as we have often heard, that Farmers' Institutes were on the decline, that they had seen their best days."

"At our first meetings, when we reached the place appointed, the officers of both the men's and women's institutes were on hand to meet us, and convey us to our different places."

"The meetings were well advertised, and as a result large audiences met us at each place, both afternoon and evening. In some places the ladies provided supper, so that the people did not meet to return home before the evening meeting."

"At the Women's Institute meetings the attendance increased each day we were out, and the local officers in the different places seemed to vie with each other in making their meetings better than any other. Everywhere we went we were impressed with a feeling of enthusiasm and a deeper faith in the future of the Institute work, both for men and women."

"In West Hastings, our other riding, young men have been appointed this year as officers, and realizing the able work done by the Institute pioneers in the work, they are making every effort to accomplish even greater results in the future than their predecessors in the past. As a result, they have already secured the largest membership for 1907-1908 that West Hastings has ever given, and there are yet a number of supplementary meetings. Good audiences awaited the speakers in each place, and everywhere a bright outlook for the future is apparent."

**A WORLD'S CHAMPION COW.**

The great Holstein-Friesian cow, Colantha 4th's Johanna 48577, owned by W. J. Gillet, of Wisconsin, under the supervision of representatives of the State Experiment Station, began a year's test on December 24, 1906, which she completed on December 22, 1907, the result of which for various periods is shown in the following table and report, as published in Hoard's Dairyman:

Period.	Time.	Milk.	Fat.	Fat.
		Lbs.	%	Lbs.
1 day	—Feb. 9-10 *	90.6	5.07	4.94
7 days	—Feb. 6-13.....	651.7	4.32	28.76
30 days	—Jan. 21 to Feb. 20.....	2,873.6	3.86	110.83
60 days	—Dec. 27 to Feb. 24.....	5,326.7	3.91	208.39
120 days	—Jan., Feb., Mar., Apr.....	10,521.2	3.76	395.28
1 year	—Dec. 22, '06, to Dec. 21, '07 .....	27,432.7	3.64	998.26

The average daily yield ..... 75.2 3.64 2.73

\* This was made on the evening of Feb. 9 and morning of Feb. 10.

Following are the seven-day records made at five, eight, ten and eleven months after calving, and for periods of one week, under the supervision of the Wisconsin College of Agriculture:

Time After Calving.	Milk.	Fat.	Fat.
	Lbs.	%	Lbs.
Five months .....	613.0	3.56	21.80
Eight months .....	378.8	3.95	14.96
Ten months .....	468.7	3.40	15.95
Eleven months.....	478.6	3.61	17.28

The seven-day record made, eleven months after calving, is the largest ever made by a cow so far along in the period of lactation. In fact, it beats all weekly records made eight months after calving.

So far as we know this cow has made a clean sweep of all records from the one day to the yearly.

The amount of butter that could be made from her 998.26 lbs. of fat would be, allowing 1-6 overrun, 1,164.64 lbs., or an average of 3.19 lbs. daily for the year.

This cow and her dam and grandam do not represent the attenuated dairy form, but carry a little more flesh than the extreme dairy type. They are classed by the Holstein people as of the "milk-and-beef form." This term is a bit misleading, as it does not mean that they perform two functions, but rather they carry a little more flesh than the extreme dairy type.

**A ROUSING SHORT COURSE AT TRURO.**

Recent advices report one hundred and forty students in attendance at the short course at the Nova Scotia Agricultural College. Of this number, sixteen are from Prince Edward Island, nineteen from New Brunswick, one from Newfoundland, and the remainder from the various counties of Nova Scotia. The larger proportion of the class consists of young men from twenty to thirty years of age, but there is quite a sprinkling of some of the older men, who are of the opinion that even they can learn something by coming to hear the instruction given at the Agricultural College. The course has been by far the most successful that has yet been held in the Maritime Provinces, and is, perhaps, the most hopeful indication we have yet seen of a general revival in the agricultural spirit of the people in Eastern Canada. The instruction has been of a high character, as is evidenced by the fact that, in addition to the well-recognized faculty of the College, many well-qualified outside professional and practical men have taken part.

These men are recognized authorities on their subjects, and the occasion of having so many enthusiastic young men in the class seems to have drawn the very best from them. On Tuesday evening, January 7th, Lieutenant-Governor D. C. Fraser, of Nova Scotia, delivered an address before the students on "The Fundamental Principles of Success." He was greeted with an audience which more than taxed the capacity of the large Assembly Hall of the Agricultural College, and his address was most enthusiastically received.

It would be invidious to make any distinction in regard to the various classes which have been carried on in animal husbandry, horticulture, dairying, etc., but it should be mentioned that those who gave instructions in animal husbandry found in the College stables a splendid class of stock. In Holsteins, for example, the cows upon which students passed judgment had an average milk yield for the past season of 13,000 lbs., while other standard breeds of cattle, horses, sheep and swine were excellent. Classes in dairying and poultry were yet to be given, but promised to be fully as instructive as any of the other classes. Altogether, the students have had one of the best opportunities to receive an all-round agricultural course which has been afforded at any institution in America. The enthusiasm among the students is marked, and the influence of the course is bound to be felt throughout the Maritime Provinces.

**EASTERN ONTARIO LIVE-STOCK AND POULTRY SHOW.**

JANUARY 20TH TO 24TH.

The importance of this exhibition of the Eastern part of the Province can hardly be realized if it is properly taken advantage of by persons living in that district who are interested in live stock and poultry. The series of addresses this year are the best which have ever been arranged for this exhibition. Their benefit will depend upon the advantage taken of them by those in whose interest the show is held, and for whom the lectures are arranged. Special attention is drawn to several subjects.

Single-fare passenger and freight rates are in force over all railroads.

**PROGRAMME OF MEETINGS.**

Unless otherwise stated, these lectures will be delivered in the Lecture Room of the Exhibition Building.

**PUBLIC MEETING.**

Tuesday, January 21st, 8 p. m.—The programme for the meeting on Tuesday evening will consist of popular addresses by prominent public men. Hon. Nelson Monteith, Minister of Agriculture, will occupy the chair.

**DAIRY SESSION.**

Wednesday, January 22nd, 10 a. m.

Chairman, Hon. Nelson Monteith.

Address—"Breeding and Care of the Dairy Cow from Birth to Maturity," by W. F. Stephen, Huntingdon, Que.

Address—"Feeding Dairy Cattle," by J. H. Grisdale, Agriculturist, Central Experimental Farm, Ottawa.

Address—"Judging Dairy Cattle," by D. Drummond, Department of Agriculture, Ottawa.

**HORSE SESSION.**

Wednesday, January 22nd, 2 p. m.

Chairman, Hon. Nelson Monteith.

Address—"Selection of a Stallion and Proper Type in Mating," by John Gardhouse, Highfield.

Discussion—The discussion will be based on the information and suggestions contained in the report of the investigation into the horse-breeding industry of Ontario, which was prepared from the reports received from the special inspectors appointed by the Ontario Department of Agriculture. A number of points suggested by the directors of the Ontario Horse-breeders' Association will be presented for discussion by the President, Mr. Wm. Smith, Columbus.

**DAIRY.**

Wednesday, January 22nd, 8 p. m.

Chairman, Hon. Nelson Monteith.

Address—"Milking and the Sanitary Handling of Milk and Milk Products," by H. H. Dean, Professor of Dairy Husbandry, O. A. C., Guelph.

Address—"Stable Ventilation," by J. H. Grisdale, Agriculturist, Central Experimental Farm, Ottawa.

**SEEDS.**

Thursday, January 23rd, 10 a. m.

Chairman, Prof. G. E. Day.

Address—"The Improvement of Ontario's Pasture Crop," by C. A. Zavitz, Professor of Field Husbandry, O. A. C., Guelph.

Address—"Hill Selection of Seed Potatoes," by T. G. Raynor, Ontario Representative, Seed Branch, Ottawa.

**LIVE STOCK.**

Thursday, January 23rd, 2 p. m.

Chairman, Prof. C. A. Zavitz.

Addresses—"Judging Live Stock," illustrated by live animals and dressed carcasses:

(a) "Sheep," by Prof. H. S. Arkell, Macdonald College, Ste. Anne de Bellevue.

(b) "Swine," by G. E. Day, Professor of Agriculture, O. A. C., Guelph.

(c) "Beef Cattle," by John Gardhouse, Highfield.

Addresses—"Economic Feeding of Live Stock":

(a) "Sheep," by John Campbell, Woodville.

(b) "Swine," by G. E. Day, Professor of Agriculture, O. A. C., Guelph.

(c) "Beef Cattle," by J. H. Grisdale, Agriculturist, Central Experimental Farm, Ottawa.

**POULTRY.**

Thursday, January 23rd, 8 p. m.

Address—"Winter Egg Production," by L. H. Baldwin, Deer Park.

Address—"The Colony House—An Economical and Effective Plan of Housing Poultry," by F. C. Elford, Manager Poultry Department, Macdonald College, Ste. Anne de Bellevue, Que.

Address—"Rearing and Fattening Chickens," by A. G. Gilbert, Manager Poultry Department, Central Experimental Farm, Ottawa.

**AUCTION SALE PURE-BRED CATTLE.**

January 24th, 1.30 p. m.

The exhibition and sale will be held in the new building, known as the Howick Pavilion, situated on the Central Canada Fair Grounds, Ottawa, Ont.

**HOW TO SECURE SALVATION ARMY IMMIGRANTS.**

During the past four years, the Salvation Army has succeeded in bringing to Canada a good class of farm laborers and domestic servants.

Notwithstanding the protest made in some sections of the country, that there is a surplus of labor, the Army officials find there is still a demand for agricultural laborers, and they have chartered several ocean liners to supply the need. The call for farm laborers comes from all parts of the Dominion, and now that the Ontario Government has decided not to continue supplying farm help, and as it is likely that immigration to Canada will not commence until late in April, the demand for settlers coming out under the Army auspices is likely to be great. The first chartered ship will be the "Kensington," sailing from Liverpool, February 20th, for British Columbia points, followed by the "Southwark," on March 5th, for Ontario points; the "Ionian," from Glasgow, and the "Kensington," from Liverpool, on March 26th.

Farmers who have not made application for help for the coming season, are advised to write for application forms and further particulars to Lieut.-Colonel Howell, 20 Albert St., Toronto, Ont.

**ONTARIO HORSE-BREEDERS' EXHIBITION.**

The prize-list of the Ontario Horse-breeders' Exhibition, to be held in Toronto, February 12th to 14th, is being distributed, and may be procured, together with entry forms, from the Secretary, A. P. Westervelt, Parliament Buildings, Toronto. The prize-list offers \$3,265 in cash, made up as follows: Clydesdales (open), \$820; Shires (open), \$305; Clydesdales and Shires (Canadian-bred), \$440; Hackneys, \$420; Standard-breds, \$275; Thoroughbreds, \$365; ponies, \$180; championships, \$205; heavy draft horses in harness and shown on the line, \$305.

This classification and the large prizes offered should encourage every owner of a good stallion or mare to have them on exhibition. As the show follows immediately after the National Live-stock Convention, a large number of buyers will be present from the Eastern and Western Provinces, which will ensure a good market for all horses on exhibition. Entries close on the first of February.

**FORTHCOMING EVENTS.**

- Jan. 15th and 16th—Western Ontario Dairymen's Association, Woodstock.
- Jan. 20th to 24th—Eastern Ontario Fat-stock and Poultry Show, Ottawa.
- Jan. 28th to 30th—Nova Scotia Farmers' convention at Antigonishe.
- Feb. 3rd and 4th—Canadian Seed-growers' annual convention, at Ottawa.
- Feb. 4th—Annual meeting Dominion Shorthorn Association, in Toronto.
- Feb. 12th to 14th—Ontario Horse-breeders' Show, Toronto.
- Prince Edward Island Dairymen's Convention, Charlottetown, February 20th.
- May 4th to 9th—Canadian National Horse Show, Toronto.



## MARKETS.

## TORONTO.

## LIVE STOCK.

Receipts of live stock at the City and Junction markets for last week were 239 carloads, consisting of 3,674 cattle, 2,381 hogs, 3,064 sheep, 188 calves, and 150 horses. There were few well-finished cattle, the bulk being of the half-fat class. Trade was brisk, and prices firmer.

Receipts at the Junction market on Monday, 13th, numbered 1,074 cattle; quality fair to good; trade brisk; export steers, \$4.75 to \$5; export bulls, \$4.00 to \$4.50; picked butchers', \$4.75 to \$5; good, \$4.50 to \$4.65; medium, \$4 to \$4.40; common, \$3.60 to \$3.90; canners, \$1 to \$2 per cwt.; milkers and springers, \$30 to \$50; veal calves, \$4 to \$6.50 per cwt. Sheep, \$4 to \$4.50; lambs, \$5 to \$6 per cwt. Hogs, \$5.90 for selects, fed and watered, and \$5.70, f. o. b., cars at country points.

Exporters.—Prices last week ranged from \$4.50 to \$4.85; export bulls, \$3.50 to \$4.40.

Butchers.—Choice picked cattle, \$4.75 to \$5.05; loads of good, \$4.40 to \$4.65; medium, \$4 to \$4.25; common, \$3.50 to \$3.90; cows, \$2.25 to \$3.50; canners, \$1 to \$2 per cwt.

Feeders and Stockers.—A few common and inferior Eastern Ontario stockers, with ill-bred qualities, were sold at \$2.50 to \$2.85 per cwt. No good feeders were offered.

Milkers and Springers.—Trade in milkers and springers was not as brisk as usual, nor the quality of offerings as good as usual. Prices ranged from \$25 for inferior to \$35 for medium, and \$40 to \$55 for good, and two or three of extra quality brought \$60, and one \$70.

Veal Calves.—The market for veal calves was strong. Prices ranged from \$3.50 to \$6.50 per cwt.

Sheep and Lambs.—Export ewes, \$3.75 to \$4; rams and culls, \$3 to \$3.50 per cwt. Lambs, prices firmer, at \$5 to \$6 per cwt.

Hogs.—Receipts light, and prices firmer. Selects sold at \$6 per cwt.; lights at \$5.75 per cwt., on fed-and-watered basis. In the country places, dealers quote from \$5.65 to \$5.85, f. o. b. cars.

Horses.—The new horse market in connection with the Union Stock-yards, at Toronto Junction, was opened on Monday last, when over 100 horses were disposed of at better prices than have prevailed for some time. The leading dealers are delighted with the new market, under the management of Herbert Smith. The railway facilities are pleasing the dealers, both C. P. R. and G. T. R. being connected with the yards. Heavy-draft horses sold from \$110 to \$227.50 each, and one extra pair brought \$410; drivers sold at \$150 singly, and one extra pair at \$500. Second-hand workers sold at all prices, from \$40 to \$80 each.

## BREADSTUFFS.

Wheat.—No. 2 white, \$1; No. 2 red, 99c.; No. 2, mixed, 98c., all sellers' prices. Buyers are offering about 2c. to 3c. less. Manitoba No. 1 Northern, \$1.21; No. 2 Northern, \$1.16; No. 3 Northern, \$1.11; feed wheat, 71c.; No. 2 feed, 65c., delivered.

Barley.—No. 2, buyers, 76c., outside; No. 3 extra, 73c.

Oats.—No. 2 white, 47½c. to 48c.; No. 2, mixed, 45c. to 46c.

Rye.—No. 2, buyers, at 78c.

Peas.—No. 2, 83c. to 84c.

Corn.—Old No. 2 American yellow, 73½c., on track at Toronto.

Buckwheat.—Buyers are offering 58c.

Bran.—Farmers are paying \$25 at the city mills, retail; worth from \$20 to \$22, in bulk, on track.

Shorts.—In bulk, on track, worth about \$23 to \$24.

Flour.—90 per cent patents, \$3.75 bid for export; Manitoba patent, special brands, \$5.80; second patents, \$5.20; strong bakers', \$5.

## COUNTRY PRODUCE.

Butter.—Market easy; at unchanged quotations: Creamery, pound rolls, 29c. to 30c.; creamery, boxes, 29c. to 30c.; dairy, pound rolls, 27c. to 28c.; tubs, 25c. to 26c. There is one grade of creamery butter that sells at 34c., viz., the Locust Hill, which is handled by

Rutherford & Marshall, and so popular has this brand become that the demand is greater than the supply, and this butter retails at 38c. and 40c. per lb.

Eggs.—Strictly new-laid eggs are quoted by dealers at 30c., but they are worth 40c. to 45c., retail, on the farmers' market.

Cheese.—Market steady, at 13½c. for large, and 13¼c. for twins.

Poultry.—Prices firmer, with receipts light. Turkeys, 17c. to 18c. per lb.; geese, 12c. to 13c.; ducks, 12c. to 14c.; chickens, 14c. to 17c.; fowl, 10c.

Honey.—Market unchanged. Extracted, 13c.; combs, dozen sections, \$2.75 to \$3.

Potatoes.—Car lots, prices steady, at 75c. to 80c., on track, at Toronto.

Beans.—\$1.75 to \$1.85 for primes; hand-picked, \$1.80 to \$1.95 per bushel.

Hay.—Market easy at \$16.50 to \$17.50 for baled, in car lots, on track at Toronto.

Straw.—Prices unchanged at \$9.50 to \$10.50 for car lots, on track, at Toronto.

## TORONTO FRUIT.

Apples.—Prices easy; No. 1 Spies, \$3.75 to \$4; No. 2 Spies, \$3; Baldwins, \$2.75 to \$3.

Onions.—Per bag, \$1.15 to \$1.25.

Wm. Rennie & Co. report the seed market as being dull, with prices as follows: Alsike, fancy, \$8 to \$8.25; No. 1, \$7.50 to \$8; No. 2, per bushel, \$6.75; red clover, No. 1, per bushel, \$9.50, with fancy samples worth \$10 per bushel.

## HIDES AND TALLOW.

Prices are quoted as follows by E. T. Carter & Co., 85 East Front St., Toronto: Inspected hides, No. 1 cows and steers, 6c.; inspected hides, No. 2 cows and steers, 4c.; country hides, 4c. to 4½c.; calf skins, No. 1, city, 6c. to 8c.; kips, 6c.; horse hides, No. 1, each, \$2.25; horse hair, 27c.; tallow, 5c. to 6c.; wool, unwashed, 10c.; washed, 19c. to 20c.; rejections, 14c.; lamb skins, 75c. to 85c.

## MONTREAL.

Live Stock.—On the local cattle market, the supply was large last week, yet not too much so, there being an excellent demand from local butchers for all classes of live stock. Prices held about steady, at 4½c. to 5c. per lb. for choice, 4¼c. for fine, 4c. to 4½c. for good, 3½c. to 4c. for medium, 3c. to 3½c. for common, inferior being 2½c. to 3c., and canners being 1c. and less. Offerings of sheep and lambs were light, and, as demand was very good, the tendency of prices was higher. Choice lambs sold at 6c. per lb.; good at 5½c. to 5¼c.; common at 5c. to 5½c. Choice sheep sold at 4c.; good stock at 3½c. to 3¼c., and culls at 3c. to 3½c. per lb. The hog market has been displaying considerable strength, and prices are higher than a week ago, at 6½c. to 6¼c. per lb., for choice lots, weighed off cars.

Horses.—The outlook for trade is reported to be anything but bright. Prices continue steady, as follows: Heavy-draft horses, weighing 1,500 lbs. to 1,700 lbs., \$250 to \$300 each; light-draft, 1,400 to 1,500 lbs., \$225 to \$275 each; good blocks, 1,300 to 1,400 lbs., \$200 to \$225; express horses, \$150 to \$225; common plugs, \$50 to \$75 each, and choice carriage and saddle, \$300 to \$500.

Dressed Hogs and Provisions.—Dressed hogs of all grades in good demand. Fresh-killed, abattoir-dressed hogs selling at 8½c. to 8¼c. per lb., and country-dressed at 7½c. to 8¼c. Smoked and cured meats of all kinds are in good request, and are holding steady in price. Hams, weighing 25 lbs. or over, bringing 12½c. per lb.; those weighing 18 to 25 lbs., 13c.; those weighing 12 to 18 lbs., and as low as 8 lbs., 13½c. per lb. Bacon selling freely, at steady prices, being 12c. per lb. for green, boneless; 10½c. for flanks with the bone in, and for long clear, heavy, and 11c. for light, choice smoked being 12½c. to 15c. per lb. Lard continues unchanged, and in fair demand, at 12c. to 12½c. for pure, and 9c. to 9½c. for compound. Barrelled pork is in moderate demand, and steady, at \$20 to \$21 per lb.

Potatoes.—The market is a little stronger this week, although demand is anything but active. Meantime, only small lots are being asked for. Green

Mountain potatoes, choicest, are costing about 80c. per 90 lbs., in car lots, on track, and are selling again, same position, in broken lots, at 90c., or delivered into store, bagged, at 95c. to \$1, according to quantity. Best Quebec stock might be quoted at about 5c. less than these prices, all round.

Poultry.—The market for poultry, and particularly for turkeys, shows considerable strength at present. Turkeys are selling, in some instances, as high as 16c. per lb., this being for choicest stock, others selling down to 14c. Supplies are light. Geese are still around 9c. to 10c. per lb., and ducks around 9c. to 11c. per lb. The latter do not seem to be in request this year. It was stated recently by one merchant that 12c. to 13c. would be paid for really fancy chickens, but fair stock may be had for 9c., and fine at 11c. Fowl are quoted at about 6c. to 8c., according to quality.

Eggs.—Almost no fresh eggs are being received. Trade is mostly in held stock, and this is selling at lower figures than was thought would be the case. At the moment, however, the tone of the market seems to be firm, and some merchants look for a slight advance, shortly. Limered stock is quoted at 18c. to 21c. per doz., according to quality; while some sales of glycerined have been made at 22c. Cold-store eggs, when selected, bring from 23c. to 25c.; while No. 1 candled range around 18c. to 19c., and No. 2, around 15c. to 16c. per doz. The present cold weather is affecting the market favorably.

Butter.—Dealers report an improvement in the market. Receipts have fallen off to almost nothing, and latest makes are quoted at 26c. to 27c. per lb. Regarding the rest of the market, there seems to be some doubt. Holders are asking higher prices, but it is claimed that purchases may be made at 28c. to 28½c. for finest Octobers, in wholesale lots, although some are not prepared to sell more than single packages, and are asking 30c. for these.

Cheese.—There is every indication of strength in this market. There is a good enquiry over the cable, and although sales have not been in proportion thereto, several lots have changed hands. Holders are asking more than buyers are willing to concede; yet, it is said that a few lots of Octobers could still be had at 12½c. for white, and 13c. for colored, and Septembers at 13c. for white, and 13½c. for colored. Some are asking ¼c. more than these figures.

Grain.—The market for oats shows considerable strength, and prices have advanced somewhat during the past few days. No. 2 oats are quoted at 53c. to 54c. per bushel, in store; No. 3 at 52c. to 53c.; No. 4 at 50c. to 51c., and rejected at 49c. to 50c.

Flour and Feed.—One of the large Manitoba millers advanced prices 15c. per bbl., but as the other still quotes \$6.10 per bbl. for Manitoba spring-wheat patents, and \$5.50 for seconds, it is hardly likely that sales can be made at more.

Hay.—The market shows a slight decline in prices, as compared with a week ago, and demand is but light. There is no export, no ocean freight being offered. Prices are \$15 to \$15.50 per ton for No. 1 timothy, \$14 to \$14.50 for No. 2, and \$13 to \$13.50 for clover mixture.

Hides.—The market is very dull, and prices are exceedingly low. Dealers are still paying 5c., 6c. and 7c. per lb. for Nos. 3, 2 and 1, respectively, Montreal, and 6c. to 8c., respectively, for Nos. 2 and 1 calf skins, and selling to tanners at ½c. advance. Sheep skins are still 80c. to 85c. each, and horse hides, \$1.25 to \$1.75, respectively, for Nos. 2 and 1. Tallow is 1c. to 3½c. for rough, and 6c. for refined.

## BUFFALO.

Cattle.—Prime steers, \$5.40 to \$5.75. Hogs.—Heavy, mixed, Yorkers and pigs, \$4.75; roughs, \$4 to \$4.20. Sheep and Lambs.—Lambs, \$5 to \$7.75; yearlings, \$6 to \$6.50; lambs, closing 10c. lower.

## BRITISH CATTLE MARKET.

London.—Cables are firmer, at 10½c. to 13c. per pound, dressed weight; refrigerator beef is quoted at 9½c. per pound.

## CHICAGO.

Cattle.—Steers, \$4 to \$6.40; cows, \$2.75 to \$3.25; heifers, \$2.50 to \$5.25; bulls, \$2.35 to \$4.25; stockers and feeders, \$2.40 to \$4.40.

Hogs.—Choice heavy shipping, \$4.40 to \$4.50; butchers', \$4.40 to \$4.50; light mixed, \$4.25 to \$4.35; choice light, \$4.40 to \$4.45; packing, \$4 to \$4.45; pigs, \$3.50 to \$4.25; bulk of sales at \$4.35 to \$4.40.

Sheep and Lambs.—Sheep, \$4 to \$5.50; lambs, \$5.75 to \$7.30; yearlings, \$4 to \$6.30.

QUESTIONS AND ANSWERS.  
Miscellaneous.

**HAMPSHIRE HOGS WANTED.**  
Can you please inform me where I can secure White-belted Hampshire hogs?

F. J. B.

Ans.—Parties having hogs of this breed for sale may find it good business policy to advertise in "The Farmer's Advocate."

**EXERCISE FOR IN-FOAL MARE**

I have a good brood mare, weighing 1,100 lbs., due to foal in July. Would it do her any harm to ride her two miles to work every morning and back at night? The rider weighs 175 lbs.

H. O.

Ans.—No; such exercise would be beneficial, if moderate.

**VEGETABLE MUCK FOR CLOVER CATCH.**

Would an application of vegetable muck between now and spring on light, sandy soil, rather worn out, and now planted to winter rye, be of enough benefit to ensure a catch of clover, and pay for time and labor?

SUBSCRIBER.

Ans.—I think it would be extremely doubtful if an application of vegetable muck between now and spring would insure a catch of clover, and pay for the time and labor of application. Muck taken directly from the swamp would be somewhat sour, and not in the best condition to aid the growth of plants. If the muck had been piled in a heap for some months to allow normal nitrification to take place, the chances are that it would aid in insuring a catch of clover; but in the raw condition, I am afraid that muck would hardly pay for the application.

R. HARCOURT.

## GOSSIP.

Farmers' Institute meetings in East Middlesex will be held at Thornedale, Jan. 27th, and at Harrietsville, Jan. 28th. Speakers—W. F. Kydd, Simcoe; John Arbogast, Sebringville, and Miss Shuttleworth, Guelph. Ladies invited, and everybody welcome.

Too late for this issue, Messrs. Graham Bros., Claremont, Ont., send a change of advertisement, which will appear in our next issue, in which they offer for sale a select lot of Clydesdale and Hackney stallions, two to six years old, with size, weight and quality, and at reasonable prices. Parties interested should send for their new illustrated catalogue, and write for particulars, or, better, call and see their horses.

The annual meeting of the Ontario Horse-breeders' Association will be held at the Walker House, Toronto, on Thursday, February 13th, at 8 p. m. All members of the Association are respectfully requested to be present. Matters of importance and of interest to the horse industry will be brought up for discussion.—A. P. Westervelt, Parliament Buildings, Toronto, Secretary; Wm. Smith, Columbus, President.

## SALE DATES CLAIMED.

Jan. 30th.—Mr. J. G. Hanmer, Brantford, Ont., 100 Shropshire sheep.  
Feb. 12th.—John E. Disney & Son, Greenwood, Ont., Shorthorns and Clydesdale mares (imported and home-bred).  
Feb. 11th.—R. H. Reid & Sons, Pine River, Ont., Shorthorns.  
March 3rd.—S. J. Pearson & Son, Meadowdale, and F. A. Gardner, Britannia, Ont., joint sale of Shorthorns.  
March 4th.—Provincial sale of pure-bred cattle, at Guelph.



**Life, Literature and Education.**

(Contributions on all subjects of popular interest are always welcome in this Department.)

**THE HOME.**

(A paper read by Mr. C. C. James, Deputy Minister of Agriculture, at the Women's Institute Convention, Guelph.)

Every ten years we have a general stock-taking in this Canada of ours, to see what our possessions are and to find out what progress we have been making. We count the people, and, if we have increased by a million or two, we reckon our growth accordingly. In this estimate alone we may be mistaken, for mere increase in numbers is no test of a nation's true growth. Then we go through the mills and factories and count the people there employed, the toilers, the employees, to see whether or not the great hives of industry have been showing signs of increasing business or "busy-ness." We value the machinery and the output, and note down the workers as so many "hands." And yet this wealth may be passing mainly into the possession and under the control of comparatively few people, and the nation as a whole not be receiving the greatest benefit of this expansion of work. We may go out into the rural parts, and number the horses and cattle and sheep and swine, and total up the output of wheat and hay, of butter and cheese, of apples and potatoes, and endeavor to satisfy ourselves thereby that our country is becoming richer.

We call all this reckoning a census, and each time we take stock of our people we endeavor to make it more complete. But, after we have taken it and analyzed it, we are not satisfied that it is complete, that it gives us that insight into the make-up or condition of the people that enables us rightly to judge whether we are making true progress or not. It is all right as far as it goes, but you see it is limited mainly to material things; it is concerned only with numbering, and measuring, and weighing, and valuing.

**A CENSUS OF ANOTHER KIND.**

There is something, there are many things, in our people that it does not, that it can not very well take cognizance of. It does not go below the surface and give us a reckoning of those elements of the inner man that go to make up the real elements of human kind. It tells us nothing as to patience, generosity, cheerfulness, sincerity, devotion to duty, and honesty—those qualities sometimes called homely virtues, that play so important a part in the life of every nation. This census may count the houses of the country, and classify them as to their material composition and their size, but it does not seem to step within and set forth the qualities of the homes. It would be well if once in a while our leaders and teachers, our men and women of science, could make a census of these great homely virtues, to see

whether, as a nation, we are making true growth, or whether, in the rush to increase our population by numbers, to add to our factories by increase of product, to broaden our acres, and pile up our cheese and bacon, and beef, and wheat, we are not, after all, overlooking the more important elements that enter into the very warp and woof of the nation's true constitution.

**THE FOUNTAIN OF A NATION'S TRUE LIFE.**

Let me ask you, What is the most important, the most influential building in any nation? You take me to the magnificent and imposing pile within which sits the highest tribunal of the country, the seat of government, the law-making force. But, within there may be gathered a lot of self-seeking and oppressive persons, enacting laws for their own selfish advantage, and not for the general good of the people. You take me to cathedrals, grand and impressive in their architecture, but lifeless and cold within. You take me to halls of justice, but the very name may be a contradiction of that which is administered therein. You take me to colleges and schools, but the teaching may be narrow, false, and unsatisfying. Halls of legislation, courts of justice, churches and colleges, factories and shops, stores and offices, do not in themselves represent the full life, the true life of a people; they are not the most important elements in the life of a people; they are secondary to and dependent upon the most important life which is to be found within the homes of the people. The home life is the fountain, is the source whence these others are derived. The life of the store and the office, the life of the factory and the shop, the life of the college and the church, the life of the court and the legislature, all comes originally from the home, and it is therefore a matter of supreme importance that the life of a nation shall start right, as it emanates from the home and permeates all these other avenues in which it finds expression. Make the homes right and all these others will become right; it cannot be otherwise. Start with the homes wrong, and you need not look for right things in the school, or store, or shop, or court, or legislature. All this has been put, and well put, in that old and well-known saying, as true to-day as at any other time, "The hand that rocks the cradle is the hand that rules the world."

**THE POWER OF A NATION'S WOMEN.**

Am I putting it too strongly when I say that you women of Canada are its true rulers, and that the improvement of this country, its uplifting, will come more surely through your improvement than through any other force? That you need improving, I am quite certain you will not deny; that you desire to improve and to be better equipped to carry on this mission of improvement, you admit by your very presence here to-day, and it is a most promising sign at the times in Canada that you are found to-day, not in storming the House of Commons, or in boisterously trying to break up some gathering of men, but in quiet conference, discussing your plans, seeking en-

thusiastic encouragement from one another, and being willing to listen to the advice even from mere men who know less about the needs of your life than you do yourselves. Our only excuse for being here is that we may encourage you, and perhaps say something that will suggest some line of thought that may be of assistance to you. Let me repeat, the greatest hope of Canada is in her women, and the highest mission that you have to-day is in the building up of model homes, where the youth of this country may receive that equipment for life which is the most important, outweighing all the teachings and trainings of school and college, of office and of factory. Let me impress upon you this, the school, the college and the office can never equip a boy or girl with the most important elements of life.

**THE IDEAL OF LIFE.**

This brings us to the question, What are the most important elements of life? The answer to that question depends upon another: What is life? What is the ideal of life? Some people seem to think that it is to amass wealth, and that the best man is he who gathers together the largest amount of wealth, and all that wealth stands for; Cræsus is their ideal. Others appear to think that the aim of life is to acquire power or influence; the autocrat of all the Russias would be their ideal. Others appear to think that fame or notoriety is the end to be arrived at. I need not enumerate the many other ideals. You see them exemplified on all sides, and you see what miserable failures are the result of this seeking after false or warped ideals. I need not take time to prove to you how vain and unsatisfactory are these ideals that so many are striving after, and how the march of progress is impeded by this striving after false ideals. What a grand nation this would become if only we could have true ideals set before our people, and if the whole nation were permeated with the desire and one determination to work along the best lines. "To do good and to be good," is an old sermon often preached, and yet as full of power and potency to-day as at any time in the world's history. In fact, I do not know that ever it was as important as to-day that we strive to drive out the false ideals and motives of men, and replace them by those basic and homely virtues that are essential to the permanent working out of the people's welfare. Need I tell you or try to prove to you that patience and perseverance, cheerfulness and enthusiasm, sincerity and generosity, are to-day more powerful in the moulding of the lives of humanity than learning and cleverness and shrewdness. I ask you who are among the older classes (if the ladies will allow me to refer to the fact that even they may advance in years and become retrospective), to look back over the history of those of your life-long acquaintance, and tell me whether the homely virtues that I have described have not contributed more to the happy and successful lives of your acquaintance than has the mere cleverness of the school and the college training. Take these

qualities out of the lives of the youth, and education will become a curse, rather than a blessing. How often have you seen the man of little scholastic training succeed because he has been cheerful in his work, generous to his associates, patient in his difficulties, sincere in his dealings with men, and persevering in the working out of his plans. John Ruskin says: "On the whole, it is patience which makes the final difference between those who succeed or fail in all things. All the greatest people have it in an infinite degree, and, among the less, the patient weak ones always conquer the impatient strong."

If you desire your son, your daughter, your brother, your sister, to succeed in this world, to get the best out of the world, and to make the most of himself or herself, the best equipment that you can wish for such is that he or she be gentle, cheerful, enthusiastic, patient, generous and sincere. Give anyone these, and learning falls into second place. You need not be anxious about the life-career of such a boy or girl; you know what future is in store for such a person. You have seen the brilliant student fail in life because of the lack of these qualities. You have seen the student of only ordinary attainments succeed and succeed admirably because of the possession of these most important qualities that are not always considered in the awarding of diplomas or the attainment of scholarship. These are essential in the individual, and they alone can make a nation great.

**WHERE THESE QUALITIES MAY BE ATTAINED.**

Now, where are they to be attained? Where are they to be cultivated in the boys and girls of this country? I answer, IN THE HOMES. And the wives, the mothers, the sisters, are the greatest agents in imparting or developing them in the youth of this country. My point, then, is, that in the home is the source of the most important elements of true manhood, and anything that can be done to encourage the growth of these virtues in the homes of the people is for the making of the nation. To the women of Canada is entrusted the greatest privilege and the greatest responsibility in the rearing of the citizens of this country. You should realize the importance of this privilege, and you should recognize and accept in its truest form this responsibility. Do not make any mistake on this point. You cannot transfer this responsibility to the school, to society, or to the church. You have in your hands the future of this country, and the place, the only place, in which you can best work out this duty is in your homes. I know that our papers are filled with accounts of nations warring against one another, or of clever moves to take advantage of one another, of prize-fights and Marathon races, of political scandals and of investigations, of the speculations and manipulations of men of wealth and of soulless corporations, of the deeds and ventures of men of momentary importance—all these represent the outcome of individual life; they are not the source of national life. The

work of the home, quiet and unnoticed, is the important element, and though the world may not notice upon the front page of the newspaper or chronicle your work in heavy headlines, it is your work, after all, that tells in the final summing up. I am not here to flatter you or to deceive you by false praise. I want simply to impress upon you that in your homes you can so direct the habits, the thinking and the motives of the young men and women, and of the older men and women, also, that the greatest mass of the people shall move along right lines, and gradually obliterate from the daily record of mankind those terrible and detestable things that to-day fill the columns of so many of the papers. Future Canada is to-day rocking in the cradle of your homes, toddling with uncertain steps at your skirts, sitting at your table, receiving impressions day by day in that most receptive period of existence. Shall patience, cheerfulness, enthusiasm, gentleness, generosity, sincerity, the love of the true, the beautiful and the good, be a part of the make-up of that youth, or are you going to let future Canada depend upon the teaching of the schools and the preaching of the churches? You cannot pass on your responsibility to the teacher, the preacher and the employer. These latter have an influence, a great influence, but their value and effect depend largely upon the primary teaching of the home; the school, the church, the store, the office, the shop, are secondary; the home is fundamental.

I know that there are many whose opinions we value who lay great stress upon the school, the college, and the training of active business life, as the true educators and developers of life. They tell us, cut your boy loose from the apron-strings of his mother and send him off to school, where he will have to rub up against other boys in the classes and upon the playground. Send him away to boarding school or college, where he will have the rough edges taken off, the eccentricities toned down, and his true manliness developed; push him right out into the business of life, and let him get the hard knocks and find out that life is developed by keen competition—that is what will make a man of him better than the quiet, humdrum life of his home. They will quote to you Wellington's remark that "Waterloo was really won on the football field of Eton." There is some truth in all these things, of course, but none of these can or should take the place of the home. The value of school, college and hard business life will depend largely upon the boy's possessing these qualities which originate in the home. If he has been started right at home, he will develop well under the new training of these other institutions; but if he has been so unfortunate as to have been neglected in his home, he may make a sad failure under the influence of those severe forces that are to be found awaiting the young man who leaves home for a training elsewhere. There is a danger, a terrible danger, for the boy who is sent away from home without a good home training, in the new competition of life, where the survival of the fittest is the rule. They tell us that only thus will there be brought out of the boy what good there is in him. Very well, but the good must be in him, or it will not be brought out; that element of goodness must first be found within the make-up of the boy. In these days there appears to be an increasing tendency for us to shift the responsibility from the home, and to think that when we pay for the tuition or schooling of our boys we include in that the imparting of those virtues which belong properly to the home. If only we could, from the first years of childhood, have our boys and girls trained in the essential elements of a true home, we could send them to any school or to any college, or out into any line of business apprenticeship,

without any anxiety whatever as to their development.

#### A GRAND EQUIPMENT FOR LIFE.

What a grand equipment for life's work, duties and responsibilities the youth has whose early home-life has sown the seeds of these virtues, simple and homely or homelike, you may call them, but they are sterling, indispensable and durable. I do not, of course, for one moment state that these qualities are not to be found in our best schools, colleges, offices and places of business, but what I do say is that they have their first, their best, their surest beginning in the home, and that the youth having them will make the most of his training in school, office, and other place of preparation for life-work; and the boy who has not had the advantage of their inception in the home, starts life sadly handicapped. If they are not woven into the fabric of his early home-life, he may be handicapped, or even cursed by the teaching of the schools, the office and the factory.

Look over the daily list of wrecked lives—young men of ability occupying positions of trust and responsibility—and seek the cause of failure—defaulters, embezzlers, suicides, wreckers of homes—and ask the question, Why? Where is the weakness? What is the motive? You can, in practically all cases, answer it by saying that the unfortunate, the guilty one is lacking not in ability, not in shrewdness, but in some of those more important qualities that I have stated belong primarily to the home life.

We need churches, we need schools and colleges, we need offices and shops and stores, and we need all these of the best, and we should strive to improve all these; but, most of all, we need homes—homes of the best kind, home life of the best form, homekeepers and home-makers of the truest and noblest type, and you are to be congratulated that your mission is to endeavor to help along such an important cause.

Some may say this is well known to all people of ordinary sense and reasoning. Of course, the world would be better if we were all courteous and gentle, patient and persevering, cheerful and enthusiastic, sincere and generous. This is the gospel of true manhood and good citizenship. It is not a new gospel. Tennyson has taught us:

"How'er it be, it seems to me  
'Tis only noble to be good;  
Kind hearts are more than coronets,  
And simple faith than Norman blood."  
—Tennyson, Lady Clare Vere de Vere.)

And the same message can be found even among the old Roman poets:

Nobilitas sola est atque unica virtus.  
—(Juvenal, Satire VIII.)

#### A PROBLEM IN THE RACE TO PERFECTION.

If the improvement of the race, then, is so easy, why has it not reached perfection long since? Just because it is not "so easy." It is easier to learn mathematics than to learn to be exact and honest in one's thinking and doings; it is easier to learn how to speak a living foreign language than to restrain one's own tongue under provocation; it is easier to read the classics and to cultivate the liberal arts than to cultivate courtesy and to act in gentleness through all the trying perplexities of life; it is easier to study the problems of biology than to direct our own lives along lines of sparsity and generosity. This is an old problem, as old as the origin of the first family life, and it is still a problem, because it is a difficult one, and it is only through the strenuous and continuous struggle against selfish inclinations up through and towards these simple yet difficult virtues that humanity improves and develops into the highest and the best.

#### WHAT THE WOMEN CAN DO.

My paper so far has been a sort of sermon by a layman trying to emphasize the well-known and the generally-accepted statement that habits are best acquired in youth at home, and that habits are of more consequence to a boy or girl than learning, or what is known as cleverness. What need of all this summarizing? Only this, it is important enough to bear repetition. We cannot have it too strongly recognized, and, in these days of rush and worry, of false ambitions and misleading examples, it is well to get back to old-fashioned ideas and ideals; to call a halt, and see whether or not we who preach to others may not, after all, be lacking in some of these old-fashioned virtues that are so much needed in the present day. It is important that the work of the Women's Institutes be guided by correct principles. If your meetings, your discussions, your endeavors, are not based on these old principles, I fear that your work will not accomplish what you desire.

Here is a practical question. If gentleness and courtesy, cheerfulness and enthusiasm, patience and perseverance, generosity and sincerity, are so essential to true home life, how are they to be introduced, how are they to be taught? The question suggests its own answer. There is only one answer, "Example is better than precept." Perhaps right here you may be disposed to say that this example should be shared by the father and the brother. Quite so, but remember that I am not now talking to the men, and if you will allow me, I will right here say that, great as is the influence of man in the home, the influence of woman is, on the whole, far superior. You have only to read the lives of great men, and to talk with men whom you know, to be convinced of what I am saying. You cannot, you should not, and I am sure you would not care to try to throw off upon the men any of this responsibility that belongs to you, for this responsibility should be one in which you take true and honest pride.

What will it mean in the farm homes of this country to have these homely virtues developed? In the first place, it will tend to lift a great load off the shoulders of the men. The man whose home is cheerful and permeated with those commendable virtues, will take up his daily task with increased pleasure, and will carry on his work with greater certainty of success. In the second place, the boys and girls will be so attracted to farm work and farm life that there will be a ready solution of that oft-repeated question, "How shall we keep the boys on the farm?"

#### A FEW PROBLEMS IN REGARD TO FARM HOMES.

What a host of questions such a subject as this suggests. Perhaps you thought I intended to talk to you upon the question of the farmhouse, but my subject is the Home, not the House. You can have a home in a very cheap house, and you can have a palatial house that cannot be dignified by the name of home. The house is only one of the elements in forming the home. Had we time, we might discuss the farmer's house, under such headings as these:

How can we improve the surroundings of the house?

How should a good farmhouse be laid out so as to be comfortable and convenient?

How should the house be furnished? What labor-saving devices can be introduced so as to lighten the work of the housewife?

How shall we prepare the food and set it forth in the best manner?

Shall we have an attractive living-room, where the family can best cultivate the social side of life?

Shall we have books in the home? If so, what books?

What papers and magazines should we subscribe for?

Should the farmer's wife and the

boys and girls have papers and magazines suited to them, or must they, also, be content with the daily or weekly paper?

How can the farmer and his boys be brought into best relationship with one another, and into a sympathetic partnership of work?

Shall we have separate houses for the farm help, or must the farmer's wife and daughters continue to look after the cares of their family, and also take in boarders in a house none too large for their own family alone?

You are discussing questions such as these in your local gatherings, and no doubt you are getting help in these questions, and thereby contributing to the big general question of the improvement of the home.

I did not set myself the task of asking these questions, or of answering them. I must content myself with trying to give you in some way my idea of the great importance of the home in the life of this country, and in trying to prove that there is something more important in this home than the mere house.

#### IMPORTANCE OF THE FARM HOME.

My next statement is that the farmer's home is the most important home in Canada to-day. The city man lives amid conditions so artificial and changing that home life is apt to lose much of its original charm. And the boys and girls of the city—how they are to be pitied! So many of them have never known the delights of rural home life. Again and again they have seen the big furniture van carry the belongings of the family from one part of the crowded city to another, and their impressions of life are so filled up with noisy street cars and dusty automobiles that childhood becomes a strange mixture.

It is December in the city, and the snow is blowing in blinding clouds along the streets and around the corners. Six o'clock strikes, and the electric light still burns in the office. Six-thirty strikes, and arouses John Brown from his desk. With a heavy sigh at the work still undone, he rises wearily from the chair in which he has been sitting for several hours, puts on his heavy coat and starts for home, tired, weary, perplexed. The cool air is so refreshing, it helps, blow the troubles out of his brain. He reaches home, such as it is—magnificent, stylish, ornate, luxurious. After dinner he sits down before the grate fire and reads and re-reads the bundle of evening papers that he has brought home, or that have been left at his door. He must read these, he has formed the habit, they have become part of his daily routine. He reads the speeches that were made yesterday in the House of Commons, and comments are read in his face by the smile or the frown that unconsciously crosses his face. He reads of the financial troubles in New York and Chicago; then he hastily turns to the commercial page, and hurriedly glances over column after column of stocks. He reads of murders and other equally horrifying events; perhaps he even ventures into the mysteries of that wonderfully fascinating section, the society column. At last he settles down to the editorial page, and in the middle of an article that stretches its ponderous length over a column and a half, his head begins to nod, and he is off to the land of dreams.

Away he goes beyond the city, away into the country; there, nestled on the hillside is a little house, a gentle slope of grass leads to the front door, here and there a little clump of waving flowers or a shrub give variety to the landscape; on one side a hedge of cedar or spruce, on the other side the winding road that sweeps past the steps towards the drying-shed. A broad veranda, with some old-fashioned rocking chairs, invite to comfort. Within, the furnishings are plain and simple, but an air of sweetness and light blows through every room of the

old house, the old home. Here he sees his father, strong, hearty, hard-working, perhaps a little exacting, but moulded in the form of the old reliable pioneer, the man of strong purposes and of straight dealings, the man whose word was as good as his bond, whom everyone respected and admired. There are the brothers with whom he played and sported, the companions of his trips to the woods and the fishing stream and the old swimming hole; and his sisters, bright, gay, rollicking girls, who were equally ready for the sleigh-ride in winter, or to go berrying in summer, or to help bind the sheaves in harvest. And, last of all, there was that one, dearest of all, she who, with gentle hand and kind word, directed all and kept the life moving sweetly and quietly; she who was patient with him in his boyish eagerness, kind to him in his trouble, ever encouraging him in his studies, and, by her example, instilling principles and precepts that gradually became acquired habits. The log falls in the grate and the noise awakens him. There is a smile upon his face, a new song in his heart, and that song is, "Home, Sweet Home, be it ever so humble, there is no place like home."

"FOR HOME AND COUNTRY."

Women of Canada, members of the Women's Institute, you are the home-makers, the home-keepers, you have a mission that should inspire you. Men have done much; you can do more for this country, in which we have an honest pride. You have as the motto of your organization, "For Home and Country." Be true to that motto. Appreciate its meaning, and endeavor to live up to it. If you are true to your home, you will be true to your country; just as you improve the home, you will improve the country. Remember that the country of to-morrow is in the home of to-day, and that the best and highest mission of the young women of this country is not to become store clerks and factory employees, not to shine in society or to meddle in politics, but to become home-makers and home-keepers, and endeavor to inculcate those home virtues that surpass in importance learning, cleverness, and the acquisition of riches. For Home and Country! A country lacking in true home life will surely perish, but purity, sanity and strength in the home life will develop a country worthy of the devotion, the sacrifice and the hopes of her true womanhood.

OUR LITERARY SOCIETY.

Topic.—"It is not enough to be Topicious; so are the ants. What are you industrious about?"

Judging by the papers submitted, the above topic proved a most attractive one. The best essays, written by H. J. Brillinger, Bruce Co., Ont., and Miss K. McDiarmid, Dundas Co., Ont., are given below.

Essay I.

I once heard a lecturer at a farmers' meeting say, "It would pay some farmers to get up on the rail fence and think seriously, 'What am I doing, anyway? What am I trying to do?' Don't sit there too long, though, for that won't pay; but decide on some aim in life, and then go straight to it."

That remark applies very nicely to this subject, as well. Let us get up on the rail fence, figuratively speaking, whether farmers or not, and think over the situation for a time. What are we industrious about? What are we doing and going to be? Making money, attaining fame, social distinction?—all most excellent things in their proper place, but they all have a sting with them. There is a longing for something more and better, more satisfying.

File up your wealth as high as a

stack, but are you the better man because of it? . . . Fame? Are you better on that account? Or are you just working away like a steam derrick, monotonously, with no particular aim or thought; arise, do so much work, or gain so much pleasure, and retire, to repeat the same things the next day in the same way?

Let us remember just here that all honest work is worthy and noble, whatever our position in life may be, but why do it like a machine? Are we doing it that way?

Are we doing anything at all that is really worthy of preservation? . . . What a terrible thought, that, when we come to the end of time, nothing worthy may be accomplished after working all the time.

Well, we mustn't sit here too long, so let us think of something that will be worth while, and then get down and go straight to it.

The most important thing is yourself. Not your selfishness, oh, no, but your manhood. The kind, the quality, the manner of man you are making of yourself. On it depends your real success. What higher riches, fame or social distinction could any man have than to have it said of him, "He is a MAN?" This life is not solely for getting a living or wealth; it is the time for developing the perfect man, body, mind and soul. The standard of success that this world uses largely is worldly gain, but it is a false standard. Often what this world terms failure, is, in reality, our greatest success. We are all building. The building is character, and each act of ours is a part of the finished building. The things of time might be compared to the scaffolding. Some day, when we are through building, the scaffold will fall, and then the beauty or awfulness of our work is seen.

In that excellent little work of A. D. Watson's, "The Sovereignty of Ideals," is the following: "How commonplace are most lives! We are born, married—or not married—and die; that is all there is about us, unless, perchance, we have an ideal, in which case we cannot die. With far the most of us the drama of life is a dull and tiresome tragedy. Now and again we catch a glimpse of an ideal, and are inspired for a moment, but soon the brightness as of heaven fades into the common night, and again we are alone with our commonplace lives, our accumulated wealth, our trivial pleasures, our anxiety as to what we have or have not, and our heedlessness of what we are; our white-robed guests have vanished, and we are dejected—a hopeful indication of our sanity. We are of no account, because there is no sacred flame upon the altar. Nothing can relieve the dullness of this prosaic life, but the inspiration of ideals."

Just so; we need ideals to make our lives different from the lives of ants.

Let us, then, work to help to nobler living here, and prepare for greater and grander work in the more glorious world; to be men in the true sense of that term. Work we must, if we would attain, for idleness leads to stagnation, decay and death. So, let us be industrious, not as the ants are, but as intelligent human beings.

H. J. BRILLINGER.

Bruce Co., Ont.

Essay II.

Patience is one of the grandest virtues of the finite being. It is that peculiar quality of heart and mind which seals complaining lips, and soothes the wounded heart, and simply bides the time for the accomplishment of a purpose. But we should be careful not to mistake apathy for patience; waiting for something to turn up, like Mr. Micawber, is not patiently enduring the lot we were placed in. It is natural to think that this is a perverse and hopeless world, and to shrink back into ourselves, and let things drift. It is a weary, profitless life that waits for something to turn up, for lucky chances to come. The best

chances come only to those who take all the chances, good and bad, and make the best of them. Congested as the market may appear just now for unskilled labor in every line, it yet remains true that the market for skilled labor is never crowded; the supply of competent men and women who can do things, who can make things happen, is not equal to the demand.

Much is now being said about environment, and its important relation to the evolution of life. This is only a new name for the circumstances and conditions standing round about our life. But the life, not the environment, is really the important factor in the case. "It is in ourselves that we are thus and thus." We hold the power to transform and use the crude elements going to waste around us; circumstances are plastic in the hands of those who set themselves determinedly to make them yield; obstacles are only stepping-stones to higher heights, to ultimate success.

It is not an empty phrase, a meaningless assertion, to say that the world is not governed by gold, but by ideas; people without ideas, who are, as Charles Dickens said, so low down in the school of life as to be always making figures in their copy-books, and never getting any farther, never bestow any benefit on their friends or enjoy their own life in its broadest, fullest sense.

The chief agency for gaining success in anything—finance, education, religion, or home-making—is the mind. It is often said, and more often thought, that the greatest cause of success is labor, energy of body and strength of muscle. This is a mistake. Intellect is mightier and of more importance in gaining the highest degree of happiness than manual labor.

Success, and the enjoyment of life in its best sense, are not secured by unthinkingly doing a ceaseless round of duties because our parents did their work that way; more is required than simple earnestness and thrift. This is an age of activity and advancement; we must have the ability to utilize the forces around us, to fully comprehend current events, and turn them to proper account in the routine of daily life.

We should have an ambition, a definite goal toward which to bend our energies, that will lift our minds to the highest possible standard, and bring us into intelligent sympathy with the interests and needs of the world around us.

The supreme end of life is not in knowing or in being, but in putting the knowledge and life into action.

KATIE McDIARMID.

Dundas Co., Ont.

This essay is surely a slogan of endeavor. It is the word of the youth who, on the threshold of life, cries "Excelsior!" and presses bravely up the mountain-side. The ideal of "making things happen" is a good one; to its enthusiasm and dauntlessness has been due, perhaps, a great proportion of the progress of the world. And yet, in the broadest outlook of life, has not the deeper note been struck by Mr. Brillinger in his observation, "Often what this world terms failure is in reality our greatest success"?

Might not this question, "What constitutes success?" be a very good one for our next topic? Let us choose it—all papers to be received at this office not later than February 22nd. Look into the question from every side, and write us your opinions in regard to it in the brightest, pithiest way. Papers should not exceed 1,000 words in length.

If any little word of mine  
May make a life the brighter,  
If any little song of mine  
May make a heart the lighter,  
God help me speak the little word  
And take my bit of singing  
And drop it in some lonely vale  
To set the echoes ringing.

The Quiet Hour.

THE RESPONSIBILITY OF PRIVILEGE.

Ye are the light of the world. . . . Let your light so shine before men, that they may see your good works, and glorify your Father which is in heaven.—St. Matt. v. 14, 16.

"Heaven doth with us as we with torches do,  
Not light them for ourselves."

The other day I heard a soldier of Christ declare the responsibility of privilege in St. Paul's words: "We then that are strong ought to bear the infirmities of the weak, and not to please ourselves." He openly glorified in the consciousness of his own strength—a strength which he drew hour by hour from an Infinite Source. Knowing, beyond the possibility of doubt, that God was with him, he cared little though all the universe might be against him; but boldly announced that he could "do all things" in God's strength—or, rather, that God could do all things, using him as an instrument.

It is a wonderful thing, in this prosaic, matter-of-fact age, to see right into the secret chamber of a man's soul and find it ablaze with the glory of the ever-present GOD. It is an inspiration to hear a man frankly declare, for all the world to hear, that his greatest treasure—that which is dearer than life itself—is the absolute certainty he possesses that he is in daily, hourly communion with Christ, and that the manifest power and beauty of his life is consciously drawn straight from God. Such assertion of strength and power, felt and honestly acknowledged, is not a revelation of pride, but of deepest humility. Pride might climb to a mountain-top and look down on the weak, mounting no higher because it aims no higher. Humility can never be satisfied with attainment, but soars ever higher and higher, impelled by an unquenchable hunger and thirst after righteousness, reaching up continually after God, and filled with wondering joy at the knowledge of His mighty indwelling Presence.

But every privilege is balanced by responsibility. God does not give a man wealth for himself, but that—as a just steward—he may use it for the welfare of others. So, also, if God has given a man unusual powers of mind or body, it is no sign of humility to undervalue those gifts, or to try to shut his eyes to their existence. They are part of his equipment as a soldier and servant, not to be boasted about—why should anyone boast about things that are only entrusted to him—but to be recognized and used to the utmost, for God's glory and the good of men. We are told to let our light shine that we may see our good works, but the motive is of paramount importance. We are not to seek our own glory, but let our light be a revelation of the glory of God, a reflection of His light of love and perfect holiness.

God has seen fit to endow us with great and wonderful privilege. He has lighted us with the glorious light of Christianity. But no one lights a candle for its own sake. If it should shine for itself alone, it would be ignoring the very purpose of its existence, which is to give light to all within reach.

Do you think it strange when people who have the opportunity of living easy, comfortable lives shoulder responsibility and difficulty that they might have avoided? Do you think it is unnatural for a man to plunge into the thick of a fight, going deliberately into danger when comrades are hard-pressed, instead of sitting serenely down and congratulating himself that he is not forced into the struggle? I think, from the beginning of history, we find that man's natural instinct is to dash to the relief of those who are in need of help. When Lot was taken captive, Abraham did not rest content because he was safe. No, without any hesitation, he took on himself the quarrel of his kinsman, pursued hastily after the enemy and rescued the prisoners. Then, again, the mighty men who endangered their lives in order to bring David a drink of water, may have been unwise, but they were not unnatural.

The action of the Good Samaritan was natural and human. Being strong himself, it would have been a most unnatural thing to pass by one who was wounded and helpless. He would have been false to his manhood—as the priest and the Levite were—if he had refused to bear the infirmities of the weak, and thought only of pleasing himself. St. Paul was not unnatural when he gave up a comparatively easy life and fearlessly faced hardship and danger, weariness and painfulness, cold and hunger. It was not that he preferred these things, but he was enthusiastically carrying his message, and anything that stood in his way had to be overcome. We are being roused to a sense of our responsibilities, but there is still much to do. No one now dares to assert, with Cain, that he is not responsible for his brother's welfare. But which of us is fully living up to the responsibilities which rest upon him? A great deal has been done, but there are still many dreary lives, both in city and in country. Are we obeying the command: "Bear ye one another's burdens?" Our Leader left His glorious home in heaven that He might help men in the truest way—that is, by becoming one with them and sharing their sorrows. Many men and women have followed His example. They could not enjoy luxury while their brothers and sisters were hungry and forlorn. It has been said: "Charity in our day no longer means alms, but justice." The social settlements are substituting vital touch for the machine charity that reaped a crop of hate and beggary. They are passenger bridges, not mere chutes for the delivery of coal and vegetables—bridges upon which men go over, not down, from the mansion to the tenement. We have learned that we cannot pass off checks for human sympathy in settlement of our brotherhood arrears. The Church is hastening to enter the life of the people." If God has given freely to us—and surely He has—let us give ourselves freely and generously in whole-hearted service.

Our King is ready to advise or help us at any hour of the day or night. Shall we who rejoice in his glorious privilege keep it to ourselves? Think how many souls are lonely because they don't know about the Friend Who is all the world to us. Are we trying to bring them to Him? Do we really care about their soul-hunger? Once when the people of Samaria were perishing of hunger, four lepers outside the gates found that the siege had been secretly raised, and that there was food in abundance to be had for the whole city. They recognized the responsibility of their privilege, and felt sure that if they waited until morning, before spreading the good tidings, their punishment would be severe. They knew that God had not led them into the deserted camp of the enemy just to satisfy their own hunger. They were entrusted with the responsibility—the great privilege—of saving a starving multitude. We also are given spiritual food in infinite abundance and entrusted with the responsibility—the glorious privilege—of publishing the good tidings. Are we satisfied to enjoy all the privileges of Christianity selfishly, without troubling ourselves about others? What about the appeals for missions! Do we give to missionary causes grudgingly, just because we don't like to refuse, or do we rejoice in the thought that—if we cannot ourselves go out to carry the light of Christ's good tidings into the dark places of the earth—at least we are given the great privilege of helping others to be torch-bearers. But we must be light-bearers ourselves, also, wherever we are. Our Lord gives us messages in secret in order that we may be His ambassadors to others. He says to each disciple: "What I tell you in darkness, that speak ye in light; and what ye hear in the ear, that preach ye upon the housetops." Though it is certainly a mistake to deliberately try to preach all the time; yet, if we prize our consciousness of the ever-abiding Presence of God, we must surely be filled with the eager desire that others should know Him too; and then we cannot help trying to pass on the light. We cannot, then, keep the glad tidings to ourselves. We must let everybody within reach know the secret of our steadily-increasing gladness. We must, like St. Andrew, be continually trying—in ways that seem in our judgment likely to prove effectual—to bring our own brothers to the Master we have found.

And, if we are not passing on the light, our own brightness must soon fade away, and we may find ourselves in a horror of great darkness. Darkness that has never known the light is bad enough, but if the "light" is changed to darkness, "how great is that darkness!" What a terrible message was sent to the church of Ephesus that it was in great danger of losing its light! "Repent, and do the first works; or else I will come unto thee quickly, and will remove thy candlestick out of his place, except thou repent." If the Master finds that His servants are not using the talents committed to them, He will take them away and give them to more faithful stewards.

"To the giver shall be given:  
If thou wouldst walk in light  
Make other spirits bright:  
Who, seeking for himself alone, ever entered Heaven?  
In blessing we are blest,  
In labor find our rest:  
If we bend not to the world's work  
Heart and hand and brain,  
We have lived our life in vain."

HOPE.

#### TO WRITER OF QUIET HOUR.

I will be another to tell you not to be discouraged. Your nook in "The Farmer's Advocate" is the resting corner for many readers. Religion ought, and does, lift us out of what may appear a sad state of affairs. But there is a thought that comes often to my mind, and I would like to know your opinion of it: If our ministers, instead of always presenting the one side of the situation to us, were to present the other side, viz., no way to regain our lost prestige; no hopeful outlook; no one to ask for anything, but an offended God; no promise of hearing us; no promise that the seed would bring of its kind; a community to plant vineyard, orchard, or field crop, and watch carefully for returns with the result—two or three were successful; imagine the envy, the hopelessness, the want, the awful uncertainty hanging over all. The heathen have a desire to worship something, and that "something" holds them together. What if they did not have this desire, so necessarily put in everyone's heart to hold the world together? No satisfaction in filling one's niche worthily; no niche to fill; no nothing! It would be the reverse of painting a bright picture on a dark background. But, so beautiful to think that the bright side is ours. Yes, indeed, ours! ours! AUGUST.

### Current Events.

Mount Vesuvius is again in a state of eruption.

Edward Hanlan, former champion oarsman of the world, died in Toronto on January 4th.

Great Britain has taken exception to Japan's protest against China extending the Hsin Min Tun railroad northward, the partial construction of which has been given to a British firm.

Signor Marconi is now working on a plan to establish a system of wireless-telegraphy stations encircling the earth. Stations will probably be established at Vancouver and Hong Kong.

A terrible battle has been fought in Italian Somaliland, in a collision between the Italian forces there and the Abyssinians. It is said that the entire garrison at Lugh has been slain, and an Italian squadron has been despatched to the vicinity.

The returns from the local-option contests show that 31 municipalities have carried the by-law, 25 have defeated it by a majority vote, and 24 others, while obtaining a majority vote in favor of it, have lost because of failing to secure the three-fifths vote required. Out of six attempts to repeal existing local-option by-laws, only one has succeeded.

## The Young People's Department.

All letters intended for Young People's Department must be addressed to Cousin Dorothy, 52 Victor Ave., Toronto.

#### IN THE DO-IT-LATER LAND.

Have you ever bought a handful Of the well-I-meant-to sand,  
That is used to build the castles  
In the do-it-later land?  
It's a very pleasant country,  
And it's not so far away,  
But you can go and back again  
Quite fifty times a day.

The sun is always shining,  
All the work you have to do  
Is to build yourself a castle—  
It seems very easy, too.

Just to say, "I'll do it later,"  
And your castle is begun,  
But the strangest thing about it,  
Is, no castle's ever done.

Tho' some one is always building,  
Working hard with might and main,  
Yet no sooner is one started,  
Than it tumbles down again.  
After all, it's not so funny,  
Did you ever see a land  
That was all made up of castles,  
Built of well-I-meant-to sand?



Drawn by Our Young Artist,  
James L. Frise, Saintfield, Ont.

#### A FOX AN EXPERT MOUSER.

The following account of the effects of environment comes from a land owner in Silesia, and should prove interesting to all lovers of the animal world.

One of the keepers came on a litter of young foxes, each about the size of a half-grown cat. There were eleven of them, and ten were quickly disposed of in the neighborhood. The eleventh, however, was delicate. He seemed to have had a blow across the loins in babyhood and was but a sickly fellow. His condition awakened sympathy in the household, and he was taken in and nursed and petted into robust health.

But care and gentle treatment are now showing their effect, not only on young Reynard's physique, but on his general behavior, and the view he takes of things. Before all others he loves his master and mistress. Next to them, he esteems the house dog. In fact, should a pack now come across his way Foxy would probably show delight and an inclination to take each on for a game. Brushed and combed, it is his pride to show himself in the drawing-room when requested, or to accompany his mistress on her walk.

A few weeks ago he was missed, and it was found that he had gone to pay his devoirs alone at a house where he had been petted, getting no further, however, than the front door, where he stood importunately scratching. Nor is it all taken on his part and no return. He has become a very expert mouser. By day, however, he loves best to recline before the kitchen fire on a little old rug.

#### HE DIDN'T FEAR.

When Kipling was a 12-year-old his father took him on a sea voyage, and as Kipling senior suffered badly from sea-

sickness, he left the boy to his own devices. Presently a tremendous commotion was heard, and the boatswain dashed into Mr. Kipling's cabin, shouting at the top of his voice: "Mr. Kipling, your boy has crawled out on the yardarm; if he let's go he'll drown to a certainty!" "Yes," said the sufferer, falling back on his pillow, "but he won't let go!"

#### THE ELIZABETHAN IDEA OF A GARDEN.

For gardens, (Speaking of these, which are indeed Princelike), the Contents ought not well to be under Thirty Acres of ground; And to be well divided into three Parts; A Greene in the Entrance; A Heath or Desert in the Going forth; And the Maine Garden in the midst; Besides Alleys, on both sides. And I like well, that Foure Acres of Ground be assigned to the Greene; Six to the Heathe; Foure and Foure to either Side; And Twelve to the Maine Garden. The Greene hath two Pleasures; The one because nothing is more pleasant to the eye than Greene Grasse kept finely shorn; The other, because it will give you a faire Alley in the midst, by which you may go in front upon a Stately Hedge, which is to enclose the Garden. But because the Alley will be long, and in great Heat of the Yeare or Day, you ought not to buy the shade in the Garden by going in the Sun through the Greene, therefore you are of either side the Greene to plant a covert Alley, upon Carpenter Worke, about Twelve Foot in Height, by which you may go in shade into the Garden. As for the making of Figures with Divers Coloured Earths, that they may lie under the Windows of the House, they be but Toys; You may see as good sights any day, in Tarts. The Garden is best to be square; encompassed on all the four Side with a Stately Arched Hedge. And upon the upper Hedge, over every Arch, let there be a little Turret, enough to receive a Cage of Birds; And over every Space, betwene the Arches, some other little figure with bread plates of Round Coloured Glasse, gilt for the Sunne to play upon. But this Hedge I intend to be raised upon a bank, not steep, but gently sloped, of some Six Foot, set all with Flowers. For the Ordering of the ground within the Great Hedge, I leave it to Variety of Device, Advising nevertheless, that whatsoever form you cast it into, it be not too Busie, or full of Worke. I wish also in the very Middle, a Fair Munt, with three Ascents, and Alleys, enough for Four to walk abreast; And some fine Banqueting House, with some Chimneys neatly cast and without too much Glasse.

And because the Breath of flowers is farre Sweeter in Aire, (where it comes and goes, like the Warbling of Musick) than in the Hand, therefore nothing is more fit for that delight, than to know what be the flowers and Plants doe best perfume the Aire. And Great Princes sometimes add Statues and such things for State and Magnificence, nothing to the true pleasure of a Garden.—Lord Bacon.

#### THE KING'S CHEF.

An admiral of the English fleet or a lieutenant of the army gets no larger salary than King Edward's chef. This remarkable functionary draws \$10,000 a year.

He is a native of Southern France, and his name is Menager. His age is about forty, and he is considered, at least by King Edward, the most capable chef in the world.

So great a culinary artist is not expected to produce three masterpieces in one day, so he has nothing to do with the King's breakfast. He arrives at Buckingham Palace from his private residence nearby, in a hansom at about 11 o'clock.

In a large, sunny kitchen, overlooking the lawns, he receives the luncheon carte, drawn up by Lord Farquhar, and his work begins. First of all he orders what will be required, and the master of the kitchen sees that all the articles come in, checks each item, and then sends the account to Sir Nigel Kingscote, the paymaster, who writes out a check in payment.

After luncheon is served, M. Menager retires once more, to reappear at 6 o'clock.

## The Ingle Nook.

### AN INTERESTING LETTER FROM "ISLANDER."

Islander, Bois Blanc, has very kindly sent not only a picture of her home, but an invitation to visit her at it. I, for one, Islander, will not forget to avail myself of the privilege if ever I have a spare hour on the Detroit River. Many thanks for the invitation. . . . Don't you think a few letters from "Farmer's Advocate" readers living near other points immortalized by the old '37 Rebellion would afford interesting reading? Montgomery's Tavern, St. Denis on the Richelieu, St. Eustache, Navy Island, Windmill Point—surely we have subscribers living near these places who could send us interesting notes, if they could be so kind.

Dear Dame Durden,—You asked me to write concerning the pictures I sent you. The blockhouse was one of three which were built on the island after the close of the Patriot War of 1837, and is the only one now standing in its original form; one other since has been converted into a summer home, while the third was burned for a giant bonfire when the Provinces were united in 1867. As the war was over before they were built, they have seen no actual fighting, and, after some ten years' occupation by the troops, were finally abandoned. My father said that, as a lad, he remembered twenty-seven families living in the one shown in the picture.

The lighthouse is of a different type from the one you visited, its light being obtained from seven lamps, with large silver-plated reflectors behind them, five showing in a group out toward the open lake, while two show up the river. It is necessary to keep these lights carefully curtained, as the rays of the sun striking the reflectors would soon cause the lamps to become lighted. When the light was built in 1837, fish oil was used instead of kerosene; and, on cold stormy nights, grandmother kept the oil melted, while grandfather changed it in the lights. The tower itself is about 60 feet high, and is built of stone, which was brought from Kingston, which must have been quite an undertaking in those days, this, I think, being one of the first lights established by the Canadian Government on the lakes.

You asked me to tell you of the excursion points along the river. There are a number of them. Those who take the trip through this neighborhood should certainly not fail to visit Belle Isle, lying between Detroit and Windsor, which is indeed a beauty spot, with its zoological garden and its aquarium, which is said to be one of the finest on the continent. Then there is Tashmoo Park in the St. Clair River, and the St. Clair Flats, with its many hotels and summer cottages built out over the water and called "Little Venice," after the famous city it resembles. In the other direction, out on Lake Erie, are a group of islands; the principal one, from an excursionist point of view, being Put-in-Bay, with its many interesting caves into which one may descend and travel long distances underground, and though they are some two or three miles inland from the shore, the waves from the lake wash about in them. Then, last, there is our own Bois Blanc, with its many stately buildings. The organ in one building, the "merry-go-round," was made in Germany, and cost many thousands of dollars. If you or any of the Chatterers ever visit Bois Blanc, you must come and see us, so that we may have the pleasure of meeting in person those whom we know through the Ingle Nook.

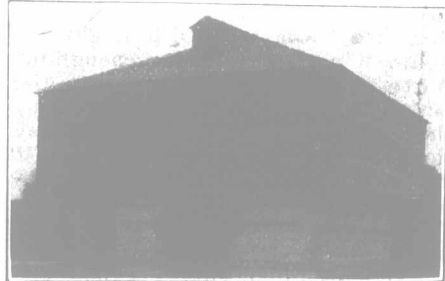
Bois Blanc Island.

### A LETTER FROM 'FORGET-ME-NOT.'

My Friends of the Ingle Nook,—In renewing our subscription to our indispensable "Farmer's Advocate," it is simply an impossibility not to call at the Ingle Nook. Dear Chatterers, I have a most delightful surprise for you, and I know you will positively envy me. I was appointed as a delegate from our Women's Institute to the Guelph convention, and as well as enjoying the various splendid addresses, I had the extreme pleasure of meeting our presiding genius, Dame Durden. Oh, Margaret

Guthrie, I can scarcely resist the temptation of giving a pen-picture of her, but must refrain, lest it be contrary to her wish. Suffice it to say, that she still enjoys "single blessedness," and is consequently not "burdened with household cares." Another point I cannot but mention is that she is by no means "an aggressive female, with a monocle, a violent plaid skirt, and a bank-clerk walk," nor does she wear an automobile veil.

In glancing over some old "Farmer's Advocates" recently, I accidentally came upon Helen's first letter to the Ingle Nook. It gave me such an insight to her home and personality that I feel as if I know her very well indeed. Then, too, the fact that you, as well as I, Helen, were inexperienced in those profound mysteries of domestic science when abandoning city life for that of the farm arouses quite a sympathetic feeling. How are those two little cherubs you mentioned, Helen? I think I shall be necessitated to follow Miss Laura Rose's counsel, given at the



Old Blockhouse, Bois Blanc Island.

Guelph convention. She was presiding at one of the sessions, and in making some allusion to home conditions, she incidentally spoke of children, and added, parenthetically: "I am taking it for granted that you all have children; if you haven't, you should buy some."

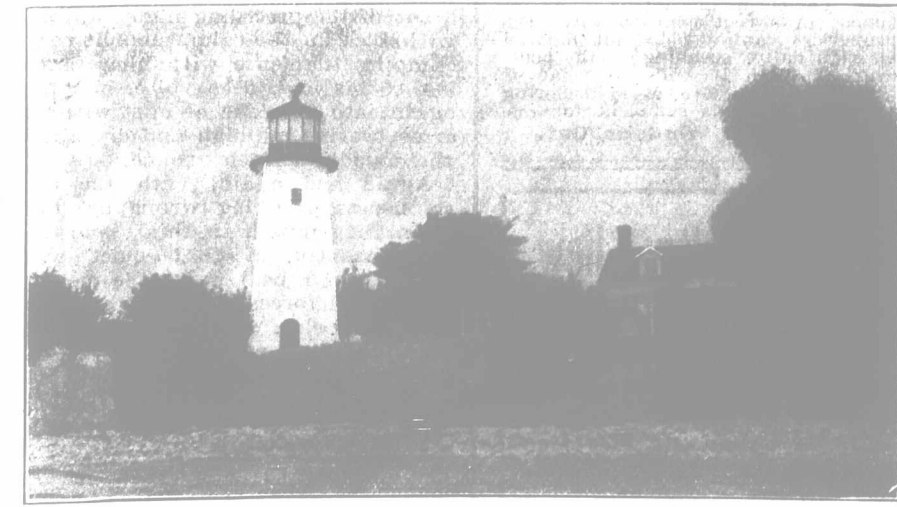
I was wondering whether any of the other Chatterers were delegates; Dame Durden told me that Katharine Blinkbonny was present, but I had not the pleasure of meeting her.

Dame Durden, do you remember our flying trip to see the famous cow? Did you secure her record afterwards?

I assure you that one of my most treasured and delightful reminiscences of the convention is the pleasure of having made your acquaintance.

My most profound courtesy to you, Peggie! Am I accurate in conjecturing that you derived your nom de plume from our popular serial, Carmichael?

Now, dear Ingle Nookers, allow me to conclude by extending New Year's greetings to all. FORGET-ME-NOT. Perth Co., Ont.



Lighthouse, Bois Blanc Island, Detroit River.

The above letter was received after my last week's screed, re the Guelph convention, was on the press, otherwise it would have been incorporated at that time. I assure you the pleasure of our meeting was not confined to your side, Forget-me-not. My only regret was that I was so "hurried" that we hadn't time to get really acquainted. . . . Can I ever forget our trip to see the cow! You have already read our humble apotheosis to her, in which you, doubtless, shared in sentiment, if not in word.—D. D.

### Hydrangea.

Dear Dame Durden,—I have been a silent reader of the Ingle Nook for a long time, and enjoy reading all the nice letters; but now I have a little trouble to bring before you; it is about my hydrangea. I put it in the cellar last winter, and in the spring when I brought it up I cut it down; then it grew very fast, and looked very healthy. In the summer I set it out in a shady place on the east side of the house, and the sun shone on it for a short time in the morning, but it never grew any more. Early in the fall I brought it in the house, but the large leaves got yellow and dropped off, and it has not grown since. The stalks look quite healthy, and have little green leaves ready to shoot out; but it has been that way since spring, and they have never opened out. I water it regularly; it was a slip about two years ago. What seems to be the matter with it, and what had I better do with it? DIMPLES.

Wellington Co., Ont.

Probably you have been starving your hydrangea. If I were you, I should rest it again this winter in a cool cellar, giving it just enough water to keep it alive. In the spring take out of the pot, shake off the old soil, and repot carefully in new soil: a rich mixture of loam, leaf-mold and sand, with a little old dried cow manure added. Bailey says to cut back to one or two pairs of buds at this time. Rexford would not cut back at all, except to prune into symmetrical shape, when growth is being made. Give plenty of water all through the summer, also occasional applications of liquid manure; you may keep the plant in a partially-shaded place, until flowering time, then expose to full sunlight. Hydrangeas require plenty of pot-room and good drainage.

### About the House.

#### WHEN THE FRUIT GETS "LOW."

Carrot Jam.—To 2 lbs. carrots cooked and pressed through a colander, add 1 lb. sugar (or more if desired sweeter), and the grated rind and juice of 2 lemons. Cook slowly until of the proper consistency.

Pumpkin Preserves.—Take pumpkin, either green or ripe, peel and cut out the center. Cut the firm portion into pieces about half an inch square. Put into a stewpan 1 lb. pumpkin to 4 lb. sugar, a little piece of ginger root, and some lemon peel. Place on stove, stir gently until sugar is dissolved, then let it cook slowly until tender. Dried pumpkin will do for this if first steamed until soft.

Sweet Apples.—Pare and core the apples, dropping the pieces into a little

ture is of the consistency of honey. It should simmer, not boil. Keep in a cool place, and use for tarts or as marmalade with toast or biscuits for breakfast.

Apple Ginger.—2 lbs. hard apples, 2 lbs. crystal sugar, 1/4 pint water, 2 ozs. preserved ginger. Boil sugar and water till it forms a thick syrup; then peel apples and cut into quarters, and boil with the ginger in the syrup until transparent.

Dates.—Wash dates, remove the seeds and fill the space with nut meats. Steam gently in a little hot water, adding at the last a very little sugar and lemon juice. Serve with cream, or whipped cream.

Dried Fruit.—Wash the fruit—figs, dates, peaches, prunes, apricots, or whatever it may be—put in a granite saucepan, cover with cold water and let stand 12 hours. Pour off the water thus saturated with fruit juice into another pan, add sugar according to taste, and boil 15 or 20 minutes. Now put in the soaked fruit, and let simmer (not boil) about 2 hours, or until tender. Let cool gradually. Lemon or orange peel may be added if liked.

## Carmichael.

BY ANISON NORTH.

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### CHAPTER XI.

#### In the Midst of the Battle.

They were all at breakfast when I went down next morning, Chris, Miss Tring, and my mother. Miss Tring had to hear all about the party; but my mother kept glancing at me nervously—while I could not look her in the face at all—and said never a word until Miss Tring had gone to school, and Chris had hobbled out to do his choring.

Then she sat down, as though unable to go on with her work until rid of that which was on her mind.

"Dick Carmichael would be at the bee?" she remarked, interrogatively.

I felt the hot blood surge to my forehead and bent my head.

"Yes, mother."

"He didn't try to speak with ye?"

"Yes, mother; he came home with me."

"Oh, Peggie, after yer promise to me!"

My mother got up and walked to the window, with a look of bitter hardness on her face, and I flew to her.

"He came home with me, mother," I repeated, "but we didn't plan for it, mother, neither he nor I, and it just seemed that it had to be that way!"

Having begun, it seemed as though I must go on and confess all, if that would loosen from me the terrible sense of double-dealing under which I was burdened.

"And I let him carry me over the plowed ground," I went on, feverishly. "And mother, I needn't have done that, and now I know it was wrong, wrong to you. But, mother, it seemed so natural, so much like old times, I just drifted into it, and I think Dick did, too. I didn't mean to do wrong to you then, mother, indeed I didn't—and I only came to think of it all in the right way afterward!"

My mother had listened to me, standing very erectly, and with that hard expression on her face which I had observed on it when she had addressed Henry Carmichael.

"You let him carry ye," she repeated, with bitter scorn. "The son o' the man that killed yer father!"

Not a word more could I say, and, dropping into a chair, I put my face in my apron, and wept.

Presently, and much to my surprise, she knelt beside me, and, pushing back my head so that she could see me, looked long and anxiously into my face. Not for many a long day afterward did the meaning of that long, anxious look dawn upon

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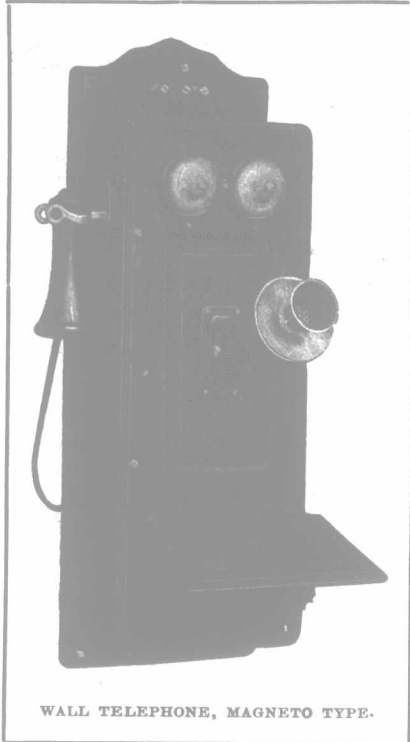
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me. But my eyes met hers unflinchingly, for now I had told her the truth.

"Indeed, mother, I did not promise to let him come with me," I said, and then I told her all the story.

"I believe ye, Peggie," she said, when I had finished, "fer never onst, even when ye were a little girl, did ye lie to me. I s'pose it seemed natural, as ye say, fer ye were great friends when ye were little, 'n' that was my fault, not yours. I s'pose, too, when ye tried to go back, that he forced himself on ye, fer that's the rough, go-ahead way o' the Carmichaels, 'n' Dick's gettin' every day to be more a chip o' the old block, so they say. But look ye here, Peggie"—with the hard, strained voice returning—"if ye care anything about yer old mother and the memory o' yer father, ye'll keep clear, from this day out, from Dick Carmichael."

"I will have nothing to do with him. Indeed I will not talk with him again," I said, ready to promise anything in the depth of my contrition, for, whatever Dick might be, would it not be ill-fitting enough for me to have aught more to say to the son of the man who had wrought us such ill, and who had, perhaps, as my mother believed, been the cause, if the indirect cause, of my poor father's tragic death?

My mother put her hand on my hair and stroked it gently.

"Ye're a good girl, Peggie," she said, "if ye weren't ye wouldn't ha' fretted so. . . . Well, well, after all no harm's done, 'n' if Dick carried ye over the muddy plowin', why it saved yer boots, fer ye couldn't ha' picked your steps goin' through the bush-road in the dark; 'n' it 'ud ha' been a pity to ha' spoiled them nice new ones. I know ye'll keep yer promise, Peggie. Ye're a good girl, 'n' ye've been a great help to me on the farm."

So the interview passed over less disastrously than I had anticipated, and when I arose and began to go about my daily duties, it was almost joyfully. Now that my promise had been again given, I would keep it. From this time henceforth I would have nothing whatever to do with Dick Carmichael, and would be able to look my mother in the face without shame. So I sang, free as a bird in the glad sense of emancipation that comes of feeling that one has made a good resolution and cut off a bond that would fetter.

But alas for human nature! When the strenuous work of the morning was over, and I had time to sit and think over my sewing, I found myself living over and over again the event of the preceding night, walking with Dick up the calm, moonlit road, climbing the fence with him, listening to his low, deep voice, plunging again into the lake of mist with his arms bearing me high and dry above the muddy, uneven ground.

Again and again, with the consciousness of doing wrong by even permitting myself to think, and that so pleasantly, of that quiet walk with Dick, I beat away the memory of it, and forced my thoughts upon something else. And at every struggle old Chris's maxims would ring in my ears: "It's what's behind the actions 'n' the words that counts most—fer yerself. If ye think what's

### CHAPTER XII.

#### A Discovery.

Upon the following morning I set out, as I so often did, upon horseback, to make a tour of the farm, this to be a final one, to see that all was in good order before winter.

As I rode slowly along, nearer and nearer to Carmichael's farm, I was annoyed to find that the consciousness of Dick and the Carmichaels was again uppermost. Instead of attending to my own fields, I found myself looking across at Carmichael's, noting the improvements, and marking how much fall plowing had been done—so many, many furrows, straight and even, as only Dick could

plow; and, instead of hurrying to get through and to my sewing, I was presently looking idly at the trees about the Carmichael home, and thinking of how sweet and kind Mrs. Carmichael was, and wondering whether she were as frail that fall as usual.

As I rode nearer to the back barn, however, these wonderings were arrested by the sound of a loud, angry voice, Carmichael's voice. He was evidently in a fury with someone. It could scarcely be with Dick, for, in all my knowledge of them, I had never heard of his being in a real passion with Dick. . . . Yet, too, after Dick's determination to ask an explanation, who knew what might happen!

With sinking heart I rode on a few paces further, then my worst fears were realized, for, standing out in the barnyard with his father, I could see Dick, with both hands in his pockets, evidently listening, quite quietly, while his father stormed.

I urged my horse on, for what they might have to say was no affair of mine, and the morning air was still; yet I hoped the man of thunder would not be too hard on Dick, poor Dick, who had been so faithful during all those years, and whose heart had been so wrong because of the one who now, it seemed, was daring to upbraid him.

How could he fault Dick—I thought, savagely—he who had done so much evil, and who, worse than all, had tried to cover up his misdeeds, and had fancied himself successful! How strange it was that all the other neighbors had little but good to say of Henry Carmichael! . . . And yet, it had been my father only whom he had hated! And he had had his revenge!

At the old home spot I drew rein and got off. It had been my mother's fancy to have it left untouched, except to cut out the weeds, and so, through all these years, the phlox, and sunflowers, and the meadow-sweet, had grown up and blossomed, and the lilac bushes and snowdrops had spread into great masses. Under the leafless cherry trees the grass was quite long and dry, so I lay down there to think.

This morning I did a sort of fierce penance in looking at the charred heap of stones piled up where the house had been, and at the depression beyond which marked the site of the old barn; one by one I called up the details of that night before me, and held them there, as one presses on an aching tooth. Above all did I dwell on that short and fatal interview between my father and Carmichael, and was almost glad when I found the old resentment against my father's enemy, which had sometimes slept, rising bitter as ever in my heart. I must never see more of Dick Carmichael. I had promised; and it was well that every reason for our utter separation should be vividly before me.

It was a last act of renunciation that I was performing there in the forsaken garden, with the dry grasses shaking about me, and the crisp, brown lilac leaves rustling like paper on the lilac bushes; and, resolute once more, I got up and led Prince out through the gateway.

As I turned to shut the gate I heard a step on the hard road, and, looking up, saw the last one whom I had wished to meet—Dick Carmichael—striding toward me with a grip in his hand.

Before I could mount, he was close to me.

"Peggie? Again?" he said, with a grim smile. "At least I am not sorry to have the opportunity of saying good-bye."

"You—you are going away?" I said.

"Yes," he said, then stood for a moment looking very far away, with serious eyes, while I, my brain in a whirl, stood clinging to my horse's mane, and wondering if Carmichael's rage had driven Dick away.

Something pitiable about me must have touched him, for, in a moment, when he looked at me again, his

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countenance changed instantly, and he came very close to me and laid his hand on my shoulders.

"We part friends?" he said.

"Yes—oh, yes!"

"Good-bye—Peggie."

An instant longer he stood looking into my face, and I—I could only look down and tremble. Two days ago, less than that, he had carried me through the plowed field, and I had thought no more of it than a child. To-day the touch of his fingers thrilled me as though some strange, delightful current were coursing through every vein. A mad joy that he was touching me, looking at me, calling me "Peggie," oh, so tenderly; then a wild sense of grief that he was going away from me, perhaps forever—yes, forever, for did not I know, even better than he, the insuperable barrier between us—then, he was gone!

Once he half turned, as though to come back, then strode on again, while I stood watching him with the tears blinding my eyes, and that new, strange tumult surging through me.

I could not mount Prince. I must watch Dick while there was even an outline of him striding down the road, and up the long hill that must hide him from view. So I stood there until the last speck of him had disappeared over the hill; then, not wishing to go home until I had my consolation under a little better control, I led Prince back into the garden again, and threw myself down on the long, dry grass under the cherry trees. . . . Where was Dick going? Why, oh, why, had I not asked him? To know would have been, at least, a little satisfaction.

And would he never come back? And how would his mother feel about it? Oh, Henry Carmichael was cruel, cruel! . . . Dick would probably run down the river to Ildering, our nearest station, from which we were divided by a long range of cliffs about which the highway made a long deviation, although they parted just enough to let the river through in a great torrent, safe enough to pass, however, when the river was low.

But was the river low now? Or was it not flooded from the heavy rains which had preceded our Indian summer? . . . If Dick should be dashed to pieces in the rapids! . . . Oh, were the tragedies of Mallory and Carmichael never to end! And so I tortured myself until it seemed as though I were in some way responsible for this quarrel between Dick and his father, and for Dick's leaving, and for all the dreadful things that might happen in consequence of it.

At last the rattle of wheels aroused me, and, not willing to be seen lying so disconsolately on the grass, I sat up.

The next instant Henry Carmichael dashed past, driving like mad. I could see his face, though he looked neither to right nor to left, and it was that of a man who rides as for a life.

"He is sorry for what he has done, and he has gone to bring Dick back!" I thought, and almost feverishly I watched him dashing along the road, with his buggy swaying from side to side, even on the way up the long hill, and urging the horse on, even though it was already straining to its uttermost.

Could he reach Dick before he got to the landing? Impossible, I thought; Dick must be already, had he been successful in getting a boat, well on his way to Ildering. Yet I could not leave until I knew, and, no longer able to lie on the grass under the cherry trees, I paced the garden feverishly, watching the hill-top at every turn.

Presently a black speck appeared above it, growing larger as a buggy came slowly down the hill. Could it be Carmichael?—coming so slowly as that?

Hours seemed to pass before the vehicle came near enough for recognition. . . . Yes, now I could see there was only one man in it. . . . A little nearer—yes, it was Carmichael's buggy, and Carmichael was re-

turning alone! He had missed Dick, or else Dick had refused to be conciliated.

Nearer and nearer! then I withdrew behind the lilac bushes, and waited, with my heart thumping so that I could hear it.

A moment later and Carmichael drove slowly past, but years, it seemed, had gone over him since he had gone on that fruitless journey. He was bowed as a broken man; the reins hung loosely in his hands; and his horse, all wet and streaked with foam, walked along with its head down, as though it were scarcely able to even walk more.

When the last sign of him had disappeared, I led Prince out once more, and, mounting, rode slowly toward home.

Though my heart was sore, I was yet conscious of a mad exultation, whose cause I could not all define. The touch of Dick's fingers was still upon my shoulder, and although I knew he had gone, and perhaps forever, it was as though I had discovered that within me which transcended all separations, all barriers, which was mine, and mine alone; and when thought of aught else intruded I drove it resolutely away. The time of repentance in sackcloth and ashes would come—I knew that—but for the present it was enough to exist in a wild, mad delirium, into which the thought that Dick had gone, and unhappily, came back and back again like a sharp pain piercing to the heart of me. And yet even the pain was sweet, since Dick had seemed sorry at parting.

All the rest of the day I worked mechanically, my hands moving of themselves, while my lips were still. "Gracious sakes alive!" said my mother, more than once, "What's the matter with ye? Ye don't seem to be puttin' neither heart nor reason into yer work! I do hope ye 're not goin' to take the fever. It's the time o' year."

Her persistent inquiries as to what was the matter with me at last stimulated me to wonder myself what was the matter. Accustomed to self-analysis, which, somehow, had become a sort of habit with me, I wondered more and more, and at last—as I slowly brushed my hair that night in my little room, it dawned upon me that this must be the thing called love.

Almost gasping at the thought, I sat down on my bed, too terrified, almost, to stand. . . . Had it come to this, that I loved the son of the man who had robbed, and, yes, perhaps had "killed" my father? That I loved the very one whom I had been forbidden to see, and had, indeed, promised not to see? The one whom, above all others, my mother could not abide?

Oh, it must be impossible! And yet, why did I thrill even now at the memory of Dick's touch and voice? Why did I think of his absence with a sickening loneliness? Why did I feel rebellious at the bonds which, unyielding as fetters of iron, would bind me from him?

I knew well that girls who find themselves in love are given to hiding the precious thing; to wandering off by themselves, and smiling, in secret, with the glow in their cheeks, and the light in their eyes. But then, these are the girls to whom love comes differently. For me—well, perhaps my training in the Clearing had left me not like others. At all events, my one desire was to know if this awful thing which I fancied I had discovered was indeed true.

Thinking of it, suddenly the little incident of the night before—how it opened the wells of sympathy between Miss Tring and my poor, groping little self!—came before me. I would ask Miss Tring.

Without further consideration I went into her room. She was in bed, and the light was out. For this last I was thankful, for it seemed that I must be able to talk better when there was no light to reveal the burning of my cheeks.

"Miss Tring."

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PLEASE MENTION THIS PAPER

"Yes, dear."

I sat down beside her, and put my arms about her.

"Miss Tring, I want to ask you, for you know, Miss Tring, is it love when the image of someone stays with you every moment that you are awake, and when you go over every little thing he has said a hundred times? . . . And oh, Miss Tring, is it love that makes you do things you have decided not to do, and keep thinking about people when you know you oughtn't to think about them, and that it would only bring trouble and misery to others if they knew?"

I was becoming rather incoherent in my speech, but I knew Miss Tring understood, for, when I paused I felt her arms tighten about me.

"Is it Dick Carmichael?" she asked, softly.

"Yes."  
For a long time she was silent; then she said, "Has he told you he cares for you?"

With the question came, for the first time, the chilling revelation that my dream-castle had, perhaps, been all of my own building; and in the shame of that revelation, I saw it tumble down stone by stone, and its rosy lines all turn to ashen gray.

"No," I stammered, "but he—he talked in such a tone—oh, I can't tell you!"

"Then," said Miss Tring, stroking my hair, "I think it will be better for you not to think of him now."

"Miss Tring, I can't help it," I burst forth, "I've thought of nothing else for two days, and how am I to fight off the thoughts that come to me, and come to me, in spite of myself. I thought I was strong—but I'm so weak."

Very gently the soft voice came out of the darkness:

"I know."

"Miss Tring," I said, after a long pause, "I suppose it was dreadful to keep thinking of Dick when he never really told me—and yet—do people ever get over loving?"

"Some do," she said, "and very quickly. I don't know about you, Peggie, but I think there may be a hard struggle before you. If things were different—but, under the circumstances, I think it will be better for you to forget Dick if you can. After all, it's our struggling that makes us brave and strong. We need it, perhaps, or we would not have it thrust upon us. And by and by, girlie, the way will open out before you, the way in which you should go. You remember what Carlyle says: 'Do the Duty which lies nearest thee, which thou knowest to be a Duty!' Thy second Duty will already have become clearer."

For the present you must work, work whether you want to or not; then, after a while the way will be clear. Our difficulties usually disentangle themselves for us, if we only go on bravely, doing whatever seems right, whatever befall."

"I suppose," I said, "I should be glad that Dick has gone?"

"I think it may make things easier for you now," she said. "When he comes back you will be older, and will know your own mind better—you know that is the joy of growing older—and then, well, perhaps things will be different."

There was an implied hopefulness in Miss Tring's words—for she had always liked Dick—but from this my saner sense told me I could take but little cheer. After all, what did Miss Tring know of the real relations between the Carmichaels and the Mallorays? How could she even guess at the impenetrability of the barrier which must stand between Dick and me for ever and ever?

And so I went back to the old way, and yet not the old way. How often in life some event happens which robs the sunshine of its brightest gleam; the wind of its crispest, keenest elixir; the music of the great world of all save the minors that are played, sad-fingered, upon the soul!

How often in life, too, do the hands that work, and the lips that answer calmly, even smilingly, but

serve as the screen to hide struggles whose record is but writ on tablets that none who run may read! Ah me, I think that in the summing up of the world's great battles, the most stubborn may be found to have been fought in the Thermopylae of the human heart.

With me, for long enough, such conflicts came to be of almost daily occurrence, especially after times of sweet dreaming of Dick, when, loathing myself for what I considered my weakness, I tried to put the knife to every natural impulse of my heart. Thus I struggled, until at last, at the very thought of Dick, I would resolutely place before me, as it were, one small groove in which I must walk, at the farther end of which two pictures stood ever for my warning: one of a huge form walking down a dark lane where the lightning had cut the blackness of the night; the other of my dear father's face, as he raised his accusing hand before the face of Henry Carmichael.

Sometimes, too, when the battle seemed unusually hard, I would take down our old copy of Bunyan's immortal work, with its quaint pictures, and read the account of Christian's encounter, in the Valley of Humiliation, with the foul fiend Apollyon.

But now, in this Valley of Humiliation, poor Christian was hard put to it, for he had gone but a little way before he espied a foul fiend coming over the field to meet him; his name is Apollyon. Then did Christian begin to be afraid, and to cast in his mind whether to go back, or to stand his ground. But he considered again that he had no armour for his back, and therefore thought that to turn the back to him, might give him greater advantage with ease to pierce him with his darts; therefore, he resolved to venture, and stand his ground, for, thought he, had I no more in mine eye than the saving of my life, it would be the best way to stand.

Was it always in the Valley of Humiliation that one must fight his battles? After all, could I hope to escape, when, as it seemed, to be beset was but human experience? Christian, too, had conquered his Apollyon, and why should not I mine, the Apollyon which declared that I should prove traitor to my mother.

Unfailingly strengthened by the grand old story, I would then go back to my work, and, throwing all my heart and energy into it, find the self-learned mercifully sent with the fall from Eden. (To be continued.)

### THE LOST BELL.

By Theodore Roberts.

The bell has dropped from the pitching buoy—

(Steer wide! Stand clear!)  
The warning voice is gone from the reef,  
With its sudden clangor and shaking grief—

Beware! Run clear!  
Steer wide, O mariner!  
Death lurks here!

Wakeup, it hung in its iron cage—  
(Steer wide! Run clear!)  
Clatter and clang, when the reef span wild—

Boom and bang when the tides ran mild—  
Beware! Hold clear!  
Have a care, mariner,  
Death lurks here!

Night, and moon, and dawn, and eve,  
(Sheer wide! Lie clear!)  
It shook, from the tumult of black and white,  
Its boom of warning and clatter of fright—

Steer out! Run clear!  
Wear ship, mariner,  
Death lurks here!

The hands of sea maids found the bell,  
All's safe! All's clear!  
Silver sea maids carried it down  
From the pitching float, to their coral town—

The ship stands in. There is naught to hear.

The bell is silent—so what's to fear?  
All's safe! All's clear!  
Welcome, O mariner—  
Death lurks near!

—[In Canadian Magazine.]

1908

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**Delights the Eye.  
Pleases the Ear.  
Is on good terms  
with the pocket-  
book.**

Examine it before making  
a purchase.

A postal will bring full  
information.

The Sherlock-Manning Organ Co.,  
LONDON, ONTARIO.

## ONTARIO HORSE BREEDERS' EXHIBITION

St. Lawrence Arena,

TORONTO, FEB. 12, 13, 14, '08

Entries Close Feb. 1.

For prize lists, entry forms, and all  
information, address:

**WM. SMITH, A. P. WESTERVELT,**  
President. Secretary,  
Parliament Buildings, Toronto.



Advertisements will be inserted under this heading, such as Farm Properties, Help and Situations Wanted, and Pet Stock.  
TERMS—Three cents per word each insertion. Each initial counts for one word and figures for two words. Names and addresses are counted. Cash must always accompany the order. No advertisement inserted for less than 50 cents.

**SCOTCHMAN**, age 35, will hire for next stallion season. Good connection in lower district of Parry Sound. Have travelled for stud company. Advertiser is willing to travel any part of the above or Muskoka District. Apply: Scotchman, Farmer's Advocate, London.

**SITUATION** wanted as herdsman (single). Good milker. Apply: W. Fortrey, Galt, Ont.

**TO RENT** or for sale on easy terms, Woodland Grange farm (480 acres), 4 1/2 miles from Moosomin, Sask. 170 acres cultivated. 160 acres of remainder fenced. For particulars apply to: W. H. Hewgill, Druggist, Moosomin.

**WANTED**—A few good subscription agents for The Farmer's Advocate and Home Magazine. Liberal terms. The William Weld Co., Ltd., London, Ont.

**WANTED**—Good second-hand threshing outfit engine. In replies state particularly the make of engine, how long in use and H. P. Apply to Subscriber, Box 34, Plattsville.

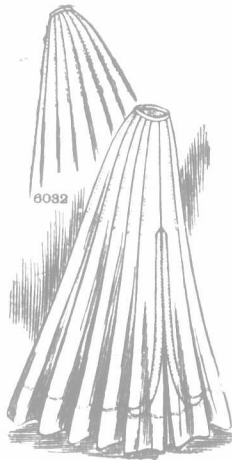
**Wanted!** I want to tan your hides, skins and furs soft and pliable; never get hard. Also to make and line your robes, or make your fur coats. Try me for best of satisfaction. I aim to please you. Address: **B. F. BELL, Delhi, Ont.**

Subscribe for "Farmer's Advocate"

"THE FARMER'S ADVOCATE" FASHIONS.



6985.—Ladies' Waist, 6 sizes, 32 to 42 inches bust measure.



6032.—Ladies' 8-gored Pleated Skirt, 9 sizes, 20 to 36 inches waist measure.

The above patterns will be sent to any subscriber at the very low price of ten cents per pattern. Order by number, and be sure to give waist and bust measurement. Allow from one to two weeks in which to fill order.

Address: "Fashion Department," "The Farmer's Advocate," London, Ont.

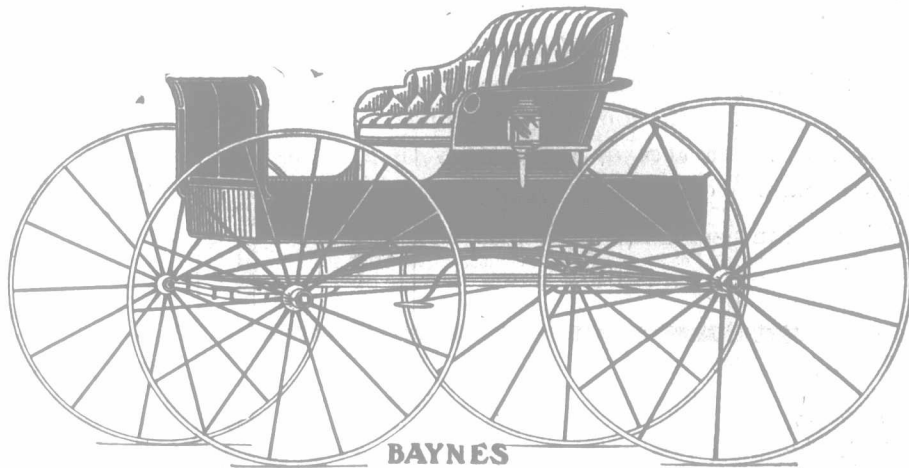
[Note.—Where two numbers appear, ten cents must be sent for each number.]

GOSSIP.

A Halton County, Ont., farmer who has a cow, writes "The Farmer's Advocate": "As I would like to purchase a Holstein or a good grade Holstein cow, I wrote some breeders some two or three weeks ago, some of whom advertise in 'The Farmer's Advocate,' and, as yet, I have failed to receive a reply. Would it not be more business-like if those men would answer correspondents, whether or not they have the stock desired?" To which we reply it would certainly be more businesslike.

A GREAT SHEEP SALE.

Mr. J. G. Hamner, Brantford, Ont., will sell at auction, on Jan. 30th, at his Belmont Stock Farm, as advertised in this paper, 100 head of choice yearling Shropshire ewes, recently imported from noted English flocks, bred to high-class rams before shipment. Included in the sale will be a number of imported yearling rams and ram lambs, also a number of home-breds of different ages and both sexes. The Belmont flock has a continental reputation for prizewinning at Provincial, Dominion and International exhibitions, and this sale will afford a rare opportunity for securing foundation stock, or new blood to strengthen an existing flock. Sheep are trumps in the market in these times, and the prospect is brighter for this than for any class of farm stock. Central Canada is ideal in its conditions for sheep-raising, and sheep are, without doubt, the most profitable stock on the farm, considering cost of care and feeding. See the advertisement of this sale, and be governed by good judgment as to your own interests.



BAYNES

No. 514 1/2

Here's just about the nobbiest thing in the way of Road Wagons that you will see "in a month of Sundays." Fitted with or without fenders and lamps. Large, roomy Auto seat, 3-reach Concord gear. Body, black; Gear, carmine, claret or canary.

The Condord Gear jobs do not weigh any more than the ordinary Elliptic spring jobs, and ride far easier.

No. 514 1/2 has the Long Distance Dirt-proof Axle, too, that runs a year with one oiling.

Write for name of local dealer handling Baynes Carriages, so you can see the complete line for 1908.

THE BAYNES CARRIAGE CO.

LIMITED

Hamilton, Ont.

Consumption of Potash Doubled in One Year.

Statistics show that during the year ending June 30th, 1907, almost exactly double the amount of Potash was consumed for agricultural purposes in Canada than during the previous year, ending June 30th, 1906, which proves that farmers are becoming awakened to the fact that POTASH IS ESSENTIAL TO SUCCESS IN FARMING.

This highly-important Plant Food may now be obtained of all leading Fertilizer Dealers in the concentrated forms of MURIATE of POTASH and SULPHATE of POTASH. Write us for FREE copies of our publications.

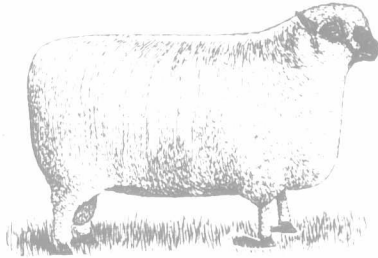
The Dominion Agricultural Offices of the Potash Syndicate, Rooms 1102-1105 Temple Building, Toronto, Ont.

SUNNY SPRINGS, a choice farm of 150 acres, in a choice location, is advertised for sale in this paper by D. A. James, of Dorchester, Ont., on a good gravel road, only 7 miles from the City of London, convenient to station on Hamilton-to-London section of G. T. R.; soil, a rich, sandy loam, tile drained, in fertile condition, a large dairy herd having been fed on farm for many years; modern buildings; silos, with capacity for 160 tons; close to school, churches, post office and cheese factory; spring water on farm, supplied to buildings by hydraulic ram. This farm is well known to "The Farmer's Advocate" staff as a very desirable property, and is in a district where farmers are as prosperous as in any section of the Dominion.

HELP FOR READERS.—Among unique publications devised to help farmers is a new "Farm Almanac," issued by Doubleday, Page & Co., which contains, in condensed form, all sorts of practical information, weights and measures, planting tables, problems re building and measurements of all kinds, instructions re silo building, spraying, road-making, grafting, what to do in case of accidents—hundreds of other things which every farmer should have within ready reach. The price is only 25 cents. Write for the book to Doubleday, Page & Co., 133 East 16th St., New York City.

The swinging steel cattle stanchions manufactured and advertised by the Metal Shingle Company, of Preston, Ontario, have many advantages to their credit, being inexpensive to instal, strong, simple and easily worked, giving the cattle liberty to lick themselves and comfort whether standing or lying down, keeping the animals clean and saving labor in fastening and unfastening them, making the stable light and airy and free from harbors for vermin or the parasites of fungous diseases, important considerations affecting the health and thrift of the stock. Parties contemplating building or remodelling stables will do well to write the company for their free catalogue, explaining fully the principle of the stanchions and their claims to preference.

AUCTION SALE OF SHROPSHIRE  
At the Belmont Stock Farm, Brantford, Ont., Can.,  
THURSDAY, JANUARY 30th, 1908.



and American Hotel, Brantford, at 10.30 a. m. and 12.30 p. m. for the farm. Eight months' credit will be given on approved paper.

Will sell by public auction at 1 o'clock p. m. on above date 100 very choice yearling Shropshire ewes, recently imported from the most noted flocks of England, to lamb imp. lambs, having been bred before leaving England to celebrated English sires. Will also sell a few excellent yearling rams and ram lambs bred from the flock of Thos. Butter, of Scotland. Will sell a few home-breds of the different ages. Every sheep man should be interested, this being one of the most noted flocks in America, having won all flock prizes and championships at Canadian National (Toronto), Dominion Fair (Sherbrooke), and Central Canada Fair (Ottawa), 1907. Carriages will leave the Belmont Hotel

J. G. HANMER, Prop.,  
BRANTFORD, ONT., CAN.

Welby Almas, Auct.

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

## Does Your Food Feed You?

Dr. H. Snow, late senior surgeon Cancer Hospital, London, wrote: "The maintenance of sound nerve equilibrium by scientific nutrition like "BOVRIL" will do more to stay the ravages of any malady than a century of medical progress in drug treatment.

All that is good in beef is in "BOVRIL."



# The EDISON PHONOGRAPH

NO one need be barred from owning an Edison Phonograph because he has not the entire purchase money in hand. Nearly every dealer will make an arrangement whereby, after paying a small amount, you can have the Phonograph delivered and begin to enjoy it at once, paying the rest in instalments that will be less than you pay for an evening's entertainment at the theatre.

If you have not heard the new Edison model with the big horn, go to the nearest Edison store and hear it, or write to us for descriptive booklet. WE DESIRE GOOD, LIVE DEALERS to sell Edison Phonographs in every town where we are not now well represented. Dealers should write at once to NATIONAL PHONOGRAPH CO., 100 Lakeside Ave., Orange, N.J., U.S.A.



### QUESTIONS AND ANSWERS. Veterinary.

#### IODIDE OF POTASSIUM TREATMENT FOR LUMP JAW.

1. Describe the iodide of potassium treatment for lump jaw.

2. How soon after treatment is it safe to feed for beef?

3. Does external treatment only usually effect a cure?

4. In the case of a young cow that has had the disease for a year, would it be profitable to treat and fatten? She is quite thin now.

Ans.—1. Give the drug three times daily by dissolving the dose in a pint of warm water and sprinkling on the food, or giving as a drench. Commence with dram doses, and increase the dose by half a dram daily, until iodism is produced. This is indicated by loss of appetite and thirst, a discharge from eyes and mouth and a scurfiness of the skin. When any of these symptoms appear, cease giving the drug. If this does not effect a cure, repeat treatment in six to eight weeks.

2. As soon as a cure has been effected.

3. No.

4. In order that treatment may be effective, it should be given in the early stages. Even then it will not in all cases cure, and in many cases, especially where there is considerable enlargement of bone, the lump does not disappear, though the disease may be arrested. It is very difficult in some cases to say whether or not a cure has been effected. It is doubtful if treatment would be effective in this case, and if the thin condition of the animal is due to the disease it would be more profitable to destroy than to treat her.

### Ontario Department of Agriculture.

## Provincial Auction Sales

OF

### PURE-BRED CATTLE

Registered,

(150 head, males and females, of beef breeds) will be held at the following points:

Ottawa, January 24  
Guelph, March 4  
Port Perry, March 11  
1908.

All stock inspected before being accepted. Only good representatives of the various breeds will be offered.

#### Special Inducement to Purchasers in Ontario:

Freight Paid: The freight on any animals purchased at these sales by residents of Ontario, shipped to purchaser's station in Ontario, will be paid by the Ontario Department of Agriculture. The original receipted freight bill containing the point of shipment and destination, name and registration number of the animal purchased and shipped, the estimated weight for billing, and the rate charged per cwt., should be sent immediately to the Live-stock Branch, Ontario Department of Agriculture, Toronto.

For catalogues and particulars regarding any of the sales, address the Secretary at the point of sale, or make application to:

Live-stock Branch,  
Ontario Department of Agriculture,  
Toronto.

### QUESTIONS AND ANSWERS.

1st.—Questions asked by bona-fide subscribers to "The Farmer's Advocate" are answered in this department free.

2nd.—Questions should be clearly stated and plainly written, on one side of the paper only, and must be accompanied by the full name and address of the writer.

3rd.—In Veterinary questions, the symptoms especially must be fully and clearly stated, otherwise satisfactory replies cannot be given.

4th.—When a reply by mail is required to urgent veterinary or legal enquiries, \$1 must be enclosed.

### Veterinary.

#### MISCELLANEOUS.

1. Give treatment for mud fever.

2. Do you approve of giving a horse a dose of Epsom salts every Saturday night?

3. Would not ground linseed be better than Epsom salts?

4. What do you think of the practice of "doping" on the principle "that if a little will do good, a large dose will do more good?"

5. Give a good prescription for colic, one that could be given quickly when a veterinarian cannot be got.

Ans.—Feed on bran only for twelve hours, then give a purgative of 8 to 10 drams aloes and 2 drams ginger, and feed bran only for 24 hours longer. After this, feed lightly and give 1½ ounces Fowler's solution of arsenic twice daily for a week. Dress the legs, three times daily, with a lotion made of 1 ounce each of sulphate of zinc and acetate of lead and ½ ounce carbolic acid to a pint of water.

2. No.

3. Yes.

4. Doping should not be practiced in any case. An animal should not be given drugs of any kind unless there is some disease, and then the drugs indicated should be given in medicinal doses. The theory that if a little of any drug does good, more will do better, is, of course, utterly and entirely false and irrational.

5. One and a half ounces laudanum, 2 ounces sweet spirits of nitre and 1 ounce fluid extract of belladonna, mixed with a pint of water, and given as a drench. Repeat in two hours, if necessary.

#### LUMP JAW.

Cow, freshly calved, has lump jaw.

1. Is the iodide-of-potassium treatment usually successful?

2. Will this treatment affect the milk? We are feeding it to calves and pigs.

3. Our local veterinarian says we might as well feed so much water as iodide of potassium, with a view of taking the lump off.

4. Cow is nine years old, and a good milker. Would you advise us to kill her?

Ans.—1. The treatment usually checks the disease, except in cases that are far advanced. When the drug is given as recommended, in sufficient doses to produce loss of appetite, and desire for water, discharge of saliva and tears and scurfiness of the skin, or any of these symptoms (this is called iodism, or poisoning by iodine), the whole system has become impregnated with the drug, and the fungus that causes the disease is supposed to be destroyed, hence the activity of the disease is arrested, and a cure may be claimed; but it must be understood that in cases where there is considerable alteration of bone structure and enlargement of the same, while in most cases the enlargement will become more or less reduced by absorption, the lump will not be entirely removed, but the fungus being destroyed there will be no further suppurative growth or spread of the disease. In far-advanced cases a cure is hard to effect. It must also be thoroughly understood that in treating any case, in order to be successful, it is absolutely necessary to continue giving the drug in gradually-increasing doses until iodism is produced. This state is much more easily produced in some animals than in others.

2. It will cause a decrease in quantity, but has no effect upon the quality. The milk can be fed with safety.

3. Your local veterinarian evidently has not given the treatment a fair trial, and either does not read veterinary literature or considers the writers unreliable.

4. I would not advise her destruction without an effort to cure.

### CONGENITAL WEAKNESS.

Colt, now seven months old, has been wrong since birth. His gait is stiff, and he wobbles. The trouble seems to be in legs, back, neck and eyes.

Ans.—As this trouble evidently is congenital, I am afraid that treatment will not be effective. Take good care of him. Feed well, and see that he gets regular exercise, and give him 20 grains nux vomica three times daily in soft food.

### Miscellaneous.

#### LIGHT BRAHMAS WANTED.

Kindly advise me, through your paper, the names of some good breeders of Light Brahma hens.

Ans.—Parties having this class of fowl for sale may find it to their interest to avail themselves of our "Wants and For Sale" advertising column, the terms of which are very low.

#### HORSE INSURANCE.

Kindly favor me with address of insurance brokers doing a horse-insurance business in Canada.

Ans.—We do not know of any horse-insurance company doing business in Canada at present. If there are any, they might profit by advertising in "The Farmer's Advocate."

### GOSSIP.

Mr. Walburn Rivers, Folden's, Ont., writes: "Our herd of Holsteins are doing well this winter, several of our young cows giving over 60 lbs. milk per day, on ordinary feed, and milking twice daily; and have given us a choice lot of calves of both sexes, most of which we will offer for sale at reasonable prices."

Mr. Wm. Thorn, Lynedoch, Ont., writes of his herd of Ayrshires: "My herd is headed by the imported bull, Holehouse Pilot (22596), bred from a heavy-milking strain, won second at Toronto and first at London in 1906; his young stock is proving him a grand sire. I have some extra fine females: Delpheddie Aggie 2nd, imported last year, is from the noted dairy herd of Andrew M. Baird, Garclaugh; she is a large-sized, deep-bodied cow, and will make a grand show and dairy animal. Lessnessock Grace Darling (imp. in dam) is proving a grand milker; gave last September, at three years old, and with first calf, 41 pounds of milk per day. Woodroffe Cairn, by Comrade's Heir of Glenora, is milking extra with first calf, and will make a heavy milker. Empress Augusta of Trout River is a grand good three-year-old, from Thomas Guy's grand old Gertie strain; grandsire Imp. Glencairn 3rd. She is a heavy milker, and is due to calve April 18th. Nellie Grey of Trout River, three years old in February, sired by Royal Peter of Neidpath, traces to my grand old show cow, Lottie, with a milk record of 64½ pounds per day. Among the heifers worth special mention are Queen Maud, Lady Addie, Queen Victoria and Dandy 1st of Lynedoch, all in calf to Holehouse Pilot, and a choice bunch, fashionable in color, and from heavy-milking stock. Among the youngsters is the bull calf, Garclaugh Gold Finder, imported last year; dam Delpheddie Aggie; sire Garclaugh Fickle Fortune. This is a grand good calf, white with brown cheeks; will be a year old in April. Another fine bull calf is Lessnessock Royalty of Trout River; dam Lessnessock Grace Darling. All are held at very reasonable prices, considering quality. Among the heifer calves is Barcheskie Juniper (imp.), bred by Andrew Mitchell, Barcheskie—a fine calf. Another beauty is Holehouse Flirt of Trout River; dam the noted cow, Polly; record, 62½ lbs. per day.

In poultry, I have choice single-comb Brown Leghorns, Barred Plymouth Rocks, Buff Orpingtons, White Wyandottes, Buff Cochins and Pekin ducks and Toulouse geese. I also have some very good, large, well-covered Shropshire sheep, from such noted flocks as Banner's and Carpenter's. Have some good ram lambs for sale."

**A lame horse is a dead loss.**

It costs as much to keep a lame horse, as it does a horse in harness — and the cripple brings nothing in. You can't afford to support idle stock. That's why you can't afford to be without



**Kendall's Spavin Cure**

It takes away the pain and stiffness from Sprains and Bruises—draws the soreness out of Strained Muscles and Tendons—CURES Spavins, Soft Bunches and Swellings. Used for two generations by two nations.

"I have used Kendall's Spavin Cure for a Bone Spavin on 4 years standing, which has entirely cured the lameness and greatly reduced the swelling. Another bottle of the Spavin Cure, I am sure, will complete the cure for me."  
HOWARD BROCK.  
\$1.00 a bottle or 6 for \$5. Sold by dealers everywhere. Write for free copy of our famous book—"Treatise On The Horse." You will find a need for it every day.  
DR. B. J. KENDALL CO., ENOSBURG FALLS, VERMONT, U.S.A. 29

**CLYDESDALES AND FRENCH COACHERS, IMP.**

Scottish and Canadian winners, stallions, mares and fillies. The Clydes represent the blood of such noted sires as Baron's Pride, Up-to-Time, Royal Favorite, Ethiopia and Aome. They combine size, quality and action. The French Coachers are a big, flashy, high-stepping lot, and are winners in both France and Canada. Our prices are right, and our horses as good as the best. Long-distance telephone.

**ROBT. NESS & SON, Howick, Quebec.**

**Largest Importation of Clydesdales, Hackneys and Percherons of the Year.**



My latest importation has just arrived here. I have now on hand for sale: 20 Clydesdale stallions from 1 to 5 years of age; 25 Clydesdale fillies from 1 to 4 years of age; 19 Hackney stallions from 2 to 8 years of age; 12 Hackney fillies, all young; and 4 Percheron stallions 3 and 4 years of age. A total of 73 head, with size, quality and action, and bred in the purple. Largest selection in Canada. Will be sold right, and on terms to suit.

**T. H. HASSARD, MILLBROOK, ONT.**

**CLYDESDALE STALLIONS**



Our new importation has just landed. An exceedingly good lot. Some extra big fellows. They may be seen at our stables, Fraser House, London. Call and see them, or write

**MESSRS. DALGETY BROS., GLENCOE, ONT.**

**Graham - Renfrew Co.'s CLYDESDALES and HACKNEYS.**



Our Clydes now on hand are all prizewinners. Their breeding is gilt-edged. Our Hackneys, both stallions and mares, are an exceedingly high-class lot. We also have a few high-steppers and carriage horses. Yonge street cars pass the door every hour. Phone North 4483.

**GRAHAM-RENFREW CO., LTD., Bedford Park, Ont.**

**CLYDESDALES**



At Columbus, Ont., the home of the winners, this year's importation just arrived. The pick of Scotland's best. For size, style, conformation, quality and royal breeding, they eclipse any former importation we ever made. Look them up in our barn on Exhibition Grounds. Over 30 head to select from.

**SMITH & RICHARDSON, COLUMBUS, ONTARIO.**

**25 Imported Clydesdale Stallions and Fillies 25**



Two Clyde stallions, 1 Hackney stallion, and 20 Clyde mares and fillies, from 1 to 5 years of age. Many high-class show animals among this lot. Many winners in Scotland among them. They have size, quality, style, action and breeding. Come and see them.

**GEORGE A. BRODIE, Bethesda P. O., Stouffville and Gormley Stations**

**Oak Park Stock Farm IMP. HACKNEYS, SHROPSHIRE, AND BERKSHIRES.**



A large number of Hackneys (stallions and fillies), imp. and out of imp. stock; all ages; show stock. Shropshires—imp. and from imp. stock; singly or in car lots. About 30 choice young Berkshires, imp. sire and dam. Everything strictly high class. **T. A. COX, Manager, Brantford, Ont.**

**Imp. Clydesdales (Stallions and Fillies), Hackneys, Welsh Ponies.**



I have now on hand Clydesdale stallions and fillies—Scotland prizewinners and champions; Hackney fillies and Hackney pony; also Welsh ponies. There are no better animals, nor no better bred ones, than I can show. Will be sold cheap and on favorable terms. **A. AITCHISON, GUELPH P. O. AND STATION.**

**SIMCOE LODGE CLYDESDALES**



Our stable of imported and Canadian-bred Clydesdale stallions and fillies was never so strong in show stuff as now, although we have had some very strong lots. Call and see what we have before buying elsewhere. **HODGKINSON & TISDALE, BEAVERTON, ONT., G. T. & C. N. R. Long-distance phone.**

**IMPORTED CLYDESDALES!**



9 stallions, 1 to 6 years of age; 10 fillies, 1 to 3 years of age, several of them in foal; 1 two-year-old Hackney stallion; 1 two-year-old Shire stallion; 3 Percheron stallions, 3 years old. All are selected animals, bred in the purple. Will be sold cheap and on terms to suit. **T. D. ELLIOTT, BOLTON, ONT. Phone.**

**Imp. Clydesdale Stallions and Fillies.**



Our new importation of stallions and fillies are the best we could select in Scotland, particularly well bred, with the size, smoothness and quality that Canadians admire. Show-ring stuff. Come and see them. Will sell on terms to suit. **JOHN A. BOAG & SON, RAYENSHOE P. O., BROWN HILL STA.**

**QUESTIONS AND ANSWERS. Veterinary.**

**SORES ON TONGUE.**

Steer has been failing for months. There are raw spots, the size of a penny, on root of tongue. The tongue is swollen, as are also the jaws. He salivates a great deal, and has difficulty in eating. I have noticed a heifer with the tip of her tongue affected in the same way. Is it contagious? **J. R.**

Ans.—The enlargement of the tongue and jaws indicate a form of actinomycosis, called wooden tongue, and it is doubtful if a case that has reached this stage will yield to treatment. Another animal eating food upon which he had salivated might contract the disease, if there were any abrasions on tongue or cheeks. Dress the sores with equal parts butter of antimony and tincture of myrrh, carefully applied with a feather once daily for three days; then gargle, twice daily, with a solution of alum, one ounce, to a pint of water. Give the iodide-of-potassium treatment, which consists in giving the drug three times daily. Commence with dram doses, and increase the dose by thirty grains daily until desire for food and water fail, tears run from his eyes, and his skin becomes scrufty. When any of these symptoms appear, cease giving the drug. If the case be simply apthia, the local treatment will effect a cure. I think it would be wise to have both patients examined by a veterinarian, as the iodide-of-potassium treatment is not advisable except in cases of actinomycosis, and is expensive. **V..**

**Miscellaneous.**

**COTTON-SEED AND OIL CAKE FOR CATTLE.**

1. Is cotton-seed meal of any value to fatten cattle?
2. How much would be safe to feed to a two-year-old steer to have any effect?
3. Is oil cake any better?
4. For fattening lambs, how many oats should be fed?

Ans.—1. Yes; but it should be fed in combination with bran, chopped oats, silage or roots, as otherwise it has a constipating effect.

2. Two pounds daily to commence with, and increasing gradually to four pounds.

3. Yes; oil cake is better and safer and more economical, considering comparative cost; but, for best results, should be mixed with bran or oats.

4. One pint per day in two feeds to begin with, and increase to one quart per day at end of one month.

**FEEDING SUGAR CANE TO HORSES.**

Would like to know, through "The Farmer's Advocate," if sugar cane, cut up with oat or wheat straw, is good feed for idle horses in winter? Is it hard to digest, and does it get too dry when kept for a time? **G. W. L.**

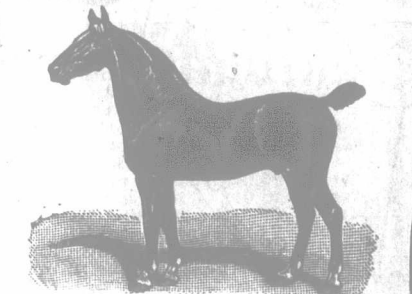
Ans.—We have had no experience in feeding dried sugar cane to horses; but in those States where sorghum is largely grown, it is highly recommended as a food for horses. Whether it would become too dry for winter feeding is a matter upon which I am not altogether clear, but I should think that such a thing would not be likely. I would not recommend, however, cutting it and mixing it with cut straw, but think it would be safer to feed it uncut. In this way, the horses would masticate it more thoroughly, and there would be less danger of indigestion. In fact, I believe that the feeding of any bulky fodder uncut is safer for horses. **G. E. DAY.**

**O. A. C.**

The Shorthorn Society, of Great Britain, is to offer £1,010 in prizes at the shows of 1908. The Royal Agricultural Society has approved of the proposal to offer Shorthorn group prizes, but suggested that there should be two classes, and intimated a contribution of £10, if the Shorthorn Society gave a similar amount, for the additional class. This arrangement was agreed to. The classes at the Royal Show, at Newcastle will be for bull and three of his offspring, and cow and three of her progeny.

*Warranted to Give Satisfaction.*

**Gombault's Caustic Balsam**



**Has Imitators But No Competitors.**

A Safe, Speedy and Positive Cure for Curb, Splint, Sweeney, Capped Hock, Strained Tendons, Founder, Wind Puffs, and all lameness from Spavins, Ringbones and other bony tumors. Cures all skin diseases or Parasites, Thrush, Diphtheria. Removes all Bunches from Horses or Cattle.

As a Human Remedy for Rheumatism, Sprains, Sore Throat, etc., it is invaluable. Every bottle of Caustic Balsam sold is warranted to give satisfaction. Price \$1.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use. Send for descriptive circulars, testimonials, etc. Address **The Lawrence-Williams Co., Toronto, Ont.**

**Dr. Page's English Spavin Cure.**

For the cure of Spavins, Ringbones, Curbs, Splints, Windgalls, Capped Hock, Strains or Bruises, Thick Hock from Distemper, Ringworm on Cattle, and to remove all unnatural enlargements.



This preparation (unlike others) acts by absorbing rather than blistering. This is the only preparation in the world guaranteed to kill a Ringbone or any bony tumor, and will not kill the hair. Manufactured by Dr. Frederick A. Page & Son, 7 and 9 York Street, London, E. C. Mailed to any address upon receipt of price, \$1.00. Canadian agents: **J. A. JOHNSTON & CO., Druggists, 171 King St. E., Toronto, Ont.**

**THICK, SWOLLEN GLANDS**

that make a horse Wheeze, have Thick Wind, or Choke-draw, can be removed with

**ABSORBINE**

of any Bunch or Swelling caused by strain or inflammation. No blister, no hair gone, and horse kept at work. \$2.00 per bottle, delivered. Book 2-C free. **ABSORBINE, JR.,** for manking, \$1.00, delivered. Cures Colic, Tumors, Varicose Veins, Hydrocele, Varicocele. Book free. Made only by **W. F. YOUNG, P.D.F., 73 Monmouth St., Springfield, Mass.** Canadian Agents: **LYMAN SMITH & CO., Montreal.**

**RIVER VALLEY CLYDESDALES AND SHORTHORNS.**

For Sale—Two stallions, one imp., the other imp. in dam; 3 imp. mares 3 and 4 yrs. of age—a grand pair, with size and quality; 1 filly foal imp. in dam. Shorthorns all ages, of both sexes; straight milking strain. **Bartholme Performer. A. V. Carefoot, Thornbury Sta., Redwing P. O.**

**Imported Clydesdales**

Just arrived, a choice shipment of stallions and fillies; dark colors; all first-class breeding. Inspection invited. Terms to suit. Long-distance phone.

**Geo. G. Stewart, Howick, Que.**

**HACKNEY STALLION**

**MARQUIS OF DUFFERIN**—Rising 4; registered; Silver Medal, Dominion Exhibition. A beauty. Chestnut, 15.2; fine action; splendid condition; sure getter. Sire Bell Boy, champion of Canada Exhibition, recently sold for a large sum in U.S.; dam first at Dominion Exhibition, by Barthelemy Performer. Bargain for quick buyer. Railway fare of purchaser deducted from price. **MOUNT VICTORIA STOCK FARM, (Clydesdales and Hackneys), Hudson Heights, P. Quebec, Can.**

Clydesdales, Shorthorns and Cotswolds—For the richest bred and choicest individuals of above breeds, write me. My new Cotswold and Clydesdale importation will arrive early in the season. **J. C. ROSS, Jarvis P.O. & Sta.**

**INTERNAL GEAR**

**THIS GEAR GIVES INSTANT ACTION TO KNIVES**

It starts them going at the same instant the big power-wheel moves; can't help it because the small pinion drives the pitman crank with no lost motion. A mower's value lies in its power to cut grass—and lots of it—quickly and continuously without a break-down. That's where our No. 8 Mower proves its worth. This internal gear works smoothly, transmits firm and steady power to the pitman. It produces almost no friction, and that unpleasant vibration and pounding prominent in some mowers is absent. The

**Frost & Wood No. 8 Mower**

is provided with ball and roller bearings wherever any wear occurs. So carefully is the No. 8 put together and so rigorously tested at the factory that it will handle the heaviest hay, and though subjected to the severest strains, still it will be remarkable how few the repairs needed. We can point to Frost & Wood Mowers made twenty years ago that are cutting grass now. Our cutter-bars are formed out of the toughest steel procurable. Pitman-head and jaws are forged steel. Pitman is made of tough, seasoned hickory. The convenient foot-lift raises the whole cutter-bar from end to end when passing stones or other obstructions.

**Mr. Farmer,** this is the mower for you to own—it's economy, wisdom and foresight—an insurance against worry. Send now for our "Farmers' Ready Reckoner" and catalog "F.R.R."—both free. Our agent in your vicinity will gladly explain our mower and other farm implements. Be free to ask him any questions.



The Frost & Wood Co., Ltd., Smith's Falls, Canada

**Tudhope Sleighs**

The Tudhopes started making sleighs in 1855. Three Tudhopes are in command at the Tudhope Works at Orillia.

It's a family affair—with a natural pride in building sleighs that live up to the Tudhope tradition of quality. And every Tudhope Sleigh is guaranteed.

**TUDHOPE No. 92**

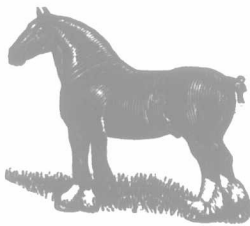
This cutter is a new design, planned to suit the requirements of those who desire a "Solid Comfort" cutter with bent dash. High spring back and spring cushion, and padded quarters. Trimmed in Figured Plush, or Green Wool Cloth. Write for free catalogue, showing the many styles made by us.



THE TUDHOPE CARRIAGE CO., Ltd. 13 ORILLIA, Ont

## JOHN CHAMBERS & SONS

Holdenby, Northampton, England,



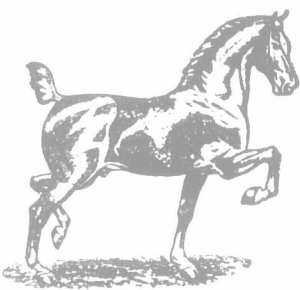
Have at their American branch, at St. Thomas, Ont., under the management of C. K. Geary, a number of good big stallions, also several very fine fillies coming three years old, and safe in foal to some of England's leading sires. Address all communications to:

**C. K. Geary, St. Thomas, Ont.**

## Union Stock Yards Co., Ltd.

Paid-up Capital Stock \$500,000.00.

TORONTO JUNCTION, ONTARIO.



Auction sales of Horses, Carriages and Harness every Monday and Wednesday throughout the year. Private sales every day.

This new market is being opened as a strictly commission market for the auction sale of horses and registered stock of all kinds, giving breeders a central place, with the very best accommodation for taking care of all kinds of stock until day of sale. Horse dealers and stock breeders will do well to send for our terms and conditions of sale.

**HERBERT SMITH, Manager.**  
(Late Grand's Repository.)

**When Writing Advertisers  
Please Mention this Paper.**

## QUESTIONS AND ANSWERS. Miscellaneous.

### IDENTIFYING STRAWBERRIES.

Will you please let me know if you can tell varieties of strawberry plants by the blossoms? You may think this a very foolish question; the reason I want to know, there is a man here says he can tell different varieties by the blossoms, but can't tell by the berries or plants.

O. M. N.

Ans.—There is a great difference in blossoms of different varieties of strawberries, but I have never yet met a man who was able to distinguish varieties by this means. I can well understand how one who had been in the habit of observing them closely could distinguish a few varieties in this way, as, for example, if he had half a dozen kinds, and some were pistillate and others perfect-flowered, it would be quite possible for him to recognize a number of them by the appearance of the blossoms. The Warfield, for instance, has small blossoms which are pistillate; that is, there are no stamens present in the flower; whereas, Clyde has large blossoms and well-developed stamens, so that if a man had these two varieties only, it would be very easy to distinguish them by blossoms; but there are so many other kinds having similar blossoms that this method could not be relied on to any great extent. We have tested over four hundred varieties here, and have made very careful observations upon the habit of plant, nature of flower and fruit, and find the easiest means of distinction is by the appearance of the plant and fruit. I think I could distinguish a hundred or more varieties by the appearance of the fruit and plant, but would not risk an opinion upon many of them by means of the blossoms only.

H. L. HUTT.

O. A. C.

### CEDAR FOR WIND-BREAK— VARIETIES OF APPLES AND PEARS.

1. Will cedar, taken from a swamp, grow on high ground?
2. Will cedar, set around an orchard, make a good wind-break? If so, what size should be taken, and how far apart should they be set?
3. I intend setting out two acres of orchard in the spring. What kinds would you advise planting, all to be winter fruit?
4. Will it pay to set out pear trees? If so, what is the best kinds to plant?

C. W. B.

Ans.—1. Young cedar trees taken from low ground may be transplanted to higher ground, and be made to do well, if given good cultivation for a time to conserve moisture about the roots. It is better, however, to get trees from the higher land than from the low land for such transplanting.

2. The white cedar makes an excellent wind-break, but is not such a rapid grower as the Norway spruce, nor does it attain so great a height. Trees varying in size from one to two feet are the best for setting out for wind-break. The distance apart at which they should be planted depends to some extent upon the height you wish the break to attain. For full development of the trees, they should be set eight or ten feet apart, and at this distance it may be well in time to cut out every other tree.

3. The selection of varieties to plant in an orchard depends somewhat upon whether they are intended for home use or for market. For market purposes, the varieties which have been the best money-makers are Baldwin and Ben Davis; but these are not among the best for home use. For a good selection for home use, I would recommend the following for your section: Blenheim, Ribston, King, Rhode Island Greening, and Northern Spy.

4. It is questionable whether pears would prove a paying crop in your section. I know of no orchards in your section to which we could refer for positive information of this kind. I believe, however, it would be well to try a few of the leading varieties, and find out how they succeed with you. I would recommend the following as a few of the good ones for trial: Clapp's Favorite, Bartlett, Flemish Beauty, Sheldon, Clarigau, Duchess and Anjou. These are given in their season of ripening, and would prove an excellent collection for home use, as well as for market.

H. L. HUTT.

O. A. C.

## HAND AND ARM ENDANGERED.

Neglect a cut or a scratch and it may turn to blood poisoning. Mr. Joseph Laliberte, of 34 Artillerie Street, Quebec, might have lost his hand and arm but for the timely use of Zam-Buk. He says: "I cut one of my fingers on a rusty piece of tin and had no idea it would become so serious, but in two days blood poison had set in, and my fingers became terribly discolored, and my hand and arm swollen. I was alarmed and began using one ointment after another, but none relieved me. I was about to consult a doctor when a friend advised me to try Zam-Buk. This I did. Zam-Buk began by drawing out the inflammation, and in one week the wound was nicely healed. Since then I have had no healing balm in the house but Zam-Buk. I feel so grateful for my speedy cure that I unhesitatingly give my testimonial to the merits of Zam-Buk."

Zam-Buk cures Cuts, Burns, Chapped Hands, Chafings, Cold Sores, Itch, Chills, Eczema, Running Sores, Sore Throat, Bad Chest, Ringworm, Piles (blind or bleeding), Bad Legs, Inflamed Patches, Rheumatism, Neuralgia, Sciatica, Abscesses and all skin diseases. Of all druggists and stores, 50c., or postpaid upon receipt of price, from Zam-Buk Co., Toronto.

**Fistula and Poll Evil**

Any person, however inexperienced, can readily cure either disease with

**Fleming's  
Fistula and Poll Evil Cure**

—even bad old cases that skilled doctors have abandoned. Easy and simple; no cutting; just a little attention every fifth day—and your money refunded if it ever fails. Cures most cases within thirty days, leaving the horse sound and smooth. All particulars given in

**Fleming's Vest-Pocket  
Veterinary Adviser**

Write us for a free copy. Ninety-six pages, covering more than a hundred veterinary subjects. Durable bound, indexed and illustrated.

**FLEMING BROS., Chemists,  
75 Church Street, Toronto, Ontario**



## Tuttle's Elixir

Greatest maker of sound horses in the world. Tested many years, never fails if cure be possible. \$100 reward if it does. For lameness, curb, splint, spavin, ringbone, swellings, etc.

## Tuttle's Family Elixir

Liniment for household use. Ask for Tuttle's American Worm and Condition Powders and Hoof Ointment. "Veterinary Experience," perfect horse-man's guide free. Symptoms and treatment for all common ailments. Write for it. Postage 2c.

**TUTTLE'S ELIXIR CO., 66 Beverly St., Boston, Mass.**  
Montreal: W. A. Tuttle, Mgr., 22 St. Gabriel St.

Beware of all blisters; only temporary relief, if any.

C. H. R. Crocker, South Farmington, Nova Scotia.

## NOTHING BUT THE BEST

New importation of Clydesdales and Hackney Stallions. For sale more Old Country premium and H. and A. Society winners than any other importer. Such horses as Acme, Monoclef Marquis, Rozelle, Ardethan, Goldsmith, King's Seal, Baron's Charm, Baron's Carrick, Abbey Fashion, Medallion and many others equally good. Thirty six in all. Prices reasonable.

**OSWALD SORBY, GUELPH P. O., ONT.**

## Aberdeen - Angus Cattle FOR SALE!

Young bulls, also females of various ages. Good, growthy, quick-feeding animals, of excellent breeding and type. Come and see them or address:

**WM. ISO-ME,  
P. O. and G. T. R. Stn., Sebringville, Ont.**

## THE SUNNYSIDE HEREFORDS

To reduce herd will sell:

10 cows at	\$100 each
10 heifers at	50 each
10 bulls from \$50 to 100 each	

Come and see them or address

**M. H. O'NEIL,  
Southgate, Ontario.**

## ABERDEEN - ANGUS

For sale, 50 head to pick from, males or females by imported sire. Drumbo station.

**WALTER HALL, Washinton, Ontario.**

**FOR QUICK SALE.**—Choice registered Holstein bull calves at \$25.00 each, sired by Prince Gretaui de Kol whose dam has an official record of over 15 pounds at three years old. Express paid anywhere in Ontario.  
**W. A. BRYANT, Cairngorm, Ont.**

# Don't Neglect a Cough or Cold

IT CAN HAVE BUT ONE RESULT. IT LEAVES THE THROAT OR LUNGS, OR BOTH, AFFECTED.

**DR. WOOD'S NORWAY PINE SYRUP IS THE MEDICINE YOU NEED.**

It is without an equal as a remedy for Coughs, Colds, Bronchitis, Sore Throat, Pain in the Chest, Asthma, Whooping Cough, Quinsy and all affections of the Throat and Lungs.

A single dose of Dr. Wood's Norway Pine Syrup will stop the cough, soothe the throat, and if the cough or cold has become settled on the lungs, the healing properties of the Norway Pine Tree will proclaim its great virtue by promptly eradicating the bad effects, and a persistent use of the remedy cannot fail to bring about a complete cure.

Do not be humbugged into buying so-called Norway Pine Syrups, but be sure and insist on having Dr. Wood's. It is put up in a yellow wrapper, three pine trees the trade mark, and price 25 cts.

Mrs. Henry Seabrook, Hepworth, Ont., writes: "I have used Dr. Wood's Norway Pine Syrup in our family for the past three years and I consider it the best remedy known for the cure of colds. It has cured all my children and myself."



## J. BRYDONE,

Breeder of pure Scotch Shorthorns. Breeding females imported. Headed by the pure Cruickshank (Duthie-bred) bull, Sittytown Victor (Imp.) =50098= (87397). Young stock from Imp. dams for sale.

Prices reasonable. Telegraph, Telephone, R. R. Sta. and P. O., Milverton.

## SPRING VALLEY SHORTHORNS

Two young imported bulls of the very best quality and breeding. Six Canadian-bred bulls, mostly the get of Bapton Chancellor (Imp.). Prices right.

## KYLE BROS., AYR, ONTARIO.

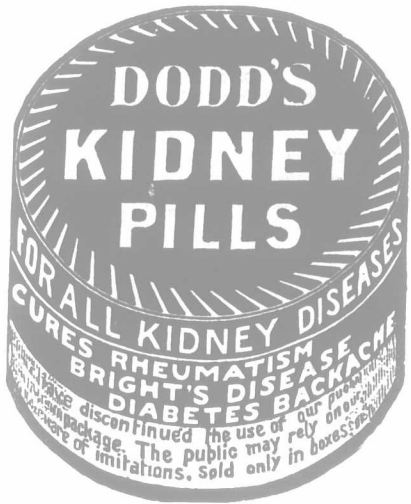
## SCOTCH SHORTHORNS!

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

High-class Shorthorns Royal Chief, a son of Mildred's Royal, at head of herd. We are offering a few choice heifers of show-ring form. Pure Scotch. Terms reasonable. A. DUNCAN & SONS, Carleton, Ont.

"I am deeply interested in discovering the lost tribes of Israel," said a musty-looking individual, as he sat down beside the busy editor's desk and prepared to read a lengthy manuscript.

"You don't mean to say so," replied the man of resources. "Then why the dickens don't you advertise for them? The business office is on the first floor. Here, Joe, show the gentleman the advertising department."



## GOSSIP.

We have received a number of bona-fide testimonials concerning the benefits received from the use of Orange Lily, advertised by Mrs. F. V. Currah, Windsor, Ont.

H. Bollert, of Cassel, Ont., writes: "Maple Grove Holsteins are wintering well, and are still doing fine and profitable work at the pail. The latest sales are: A very choice bull calf to Mr. J. P. Kelly, Hagersville, Ont., to head his fine herd of pure-breds. This calf deserves more than passing notice; his sire is Mercena's Sir Posch, whose dam, Mercena 2nd, made 25.78 lbs. butter in seven days, at five years old, and was sold for \$1,500; his sire, Sir Abbecker Posch, is out of Aaltje Posch 4th, whose public-test record of 8.6 lbs. butter in forty-eight hours stands unequalled in the world. He is full brother to Alta Posch, who holds the world's record for heifer under three years old, with 25 1/2 lbs. butter in seven days. The calf's dam is a very rich and great producing daughter of Sir Abbecker De Kol 2nd, whose dam, Tidy Abbecker, has a record of 25 1/2 lbs. butter in seven days, and she, with her two daughters and two granddaughters, hold the world's record as a family for butter production. The combination of these rich-producing bloods, coupled with his superior individuality, make him one of the most desirable sires of the breed. To Mr. Robert T. Robertson, Bobcaygeon, Ont., a very choice yearling to grade up his dairy herd; to Mr. W. J. Bald, Sebringville, Ont., a very choice yearling to head his small but choice herd of pure-breds. Both these bulls are sired by Mercena's Sir Posch, and, on their dam's side, are of the same family as Mr. Kelly's, but of different branches."

## GREENGILL SHORTHORNS.

For many years the Greengill herd of Scotch Shorthorns has been recognized as among the leading Canadian herds, the property of Mr. R. Mitchell & Sons, Nelson, Ont. It will be remembered that for several years Mr. Mitchell, Jr., was among the leading Canadian importers of Scotch Shorthorns, and that many of the extra good ones of Canada and the United States were either imported or bred by this firm. To-day the herd is about 65 strong. A number of the breeding cows are imported, the balance being bred from imported sire and dam. An exceptionally strong bunch of something over twenty head of one-, two- and three-year-old heifers are now on hand, the major part of them being sired by the Marr Princess Royal bull, Imp. Greengill Victor, a bull that, as a sire of choice stuff, has had few equals in Canada. In breeding, they represent such well-known tribes as the Strathallans, Scottish Maids, Orange Blossoms, Cranberrys, Rollas, Jilts, Marr Beautys, Cruickshank Lovelays, Mysies, Duchess of Gwynnes, Rosebuds, Victorias, Village Girls, Clarets and Duchess of Glosters, every one of which are fashionable and noted for their good-doing qualities and thick, up-to-date type. No matter how particular a buyer may be, he can pretty nearly get what he is looking for in this bunch. Any or all of them are for sale. The present stock bull, and the sire of all a year old and under, is the massive roan Broadhooks-bred bull, Imp. Lord Rosebery, a son of the great bull, Challenger. Mr. Mitchell says he is the best sire he ever owned, and, in his opinion, one of the best in Canada. Certainly, he is leaving his get exceptionally straight and even and covered with a wealth of fine silky hair, among which are several young bulls along about six and seven months of age, one of them out of Imp. Rosie, another out of Imp. Rolla, another out of an Imp. Orange Blossom dam, another out of Imp. Cranberry; this is a roan fifteen-months-old, and a good one. Another is out of a Mysie-bred cow; two are out of Orange Blossom cows; the other is out of a Scottish Maid, and, as stated above, all are sired by the old stock bull, now at the head of the herd. All are exceptionally well bred. Their individuality leaves little to be desired, and they will be sold at prices to correspond with the times. Nelson post office and Greengill farm are within about a mile of Burlington Junction (G. T. R.), and some seven miles from Hamilton, Ont.

# LOOK \$200.00 IN CASH AND 500 VALUABLE PREMIUMS

In order to introduce our goods into homes where they are not already known, we have decided to give away the above-named sum and see handsome premiums. The cash and premiums will be given in order of merit to persons sending in the best ending to the Limerick Verse that is written in part below.

- 1st prize ..... \$50.00 in cash
- 2nd prize ..... \$40.00 in cash
- 3rd prize ..... \$35.00 in cash
- 4th prize ..... \$30.00 in cash
- 5th to 9th prizes, five prizes of \$10.00 each
- 10th to 14th " Five Ladies' or Gents' Gold Filled Hunting Case Watches.
- 15th to 19th " Five Family Dinner Sets, (97 pieces).
- 20th to 24th " Five Ladies' or Gents' 1 1/2 Gold Plated Watches.
- 25th to 29th " Five sets of half a dozen Silver Plated Knives and Forks, (Rogers)
- 30th to 34th " Five Ladies' or Gents' Solid Silver Watches.
- 35th to 39th " Five Handsome Violins and Bows.
- 40th to 44th " Five Hardwood Accordeons.
- 45th to 49th " Five Magnificent Fur Ruffs.
- 50th to 54th " Ten Ladies' Toilet Sets
- 55th to 59th " One Hundred Ladies' or Gents' 1 1/2 Gold Filled Rings.
- 60th to 64th " One Hundred Waterton Mountain Pens.
- 65th to 69th " One Hundred Sets of 6 Silver Plated Tea Spoons (Rogers).
- 70th to 74th " Forty Ladies' Hand Bags.
- 75th to 79th " 100 Sets of Silver Plated Sugar Spoons and Butter Knives (Rogers)

Below will be found the Limerick Verse WITH A MISSING LINE, which line we expect our competitors to supply:

In giving good prizes we take pride,  
They make known our goods both far and wide:  
Why delay,  
Call or write to-day,

(Fill in the line above.)

Please note that the last line should rhyme with the first two lines. As a last WORD for the missing line, we would suggest the use of any of the following words: "divide," "applied," "lied," "simplified," "provide," "confide," "supplied," "denied," "beside," "sighed," "tried," "decide," "betide," "cried," "dried," "bride," "side," "compiled," "died," "implied," "spied," "inside," "lied," "tried," "ride," "tied," "abide," "aside," "deride," "astride," "belied." These words all rhyme with the endings of the first two lines in the verse.

## CONDITIONS

There is another simple condition attached to this contest about which we will write you as soon as we receive your answer to the above. This condition does not involve the spending of one cent of your money.

The judging of the Limericks will be in the hands of a committee of three gentlemen of undoubted integrity who have no connection with this office. No employee of ours or any of their relations will be allowed to compete, and the committee's judgment must be accepted as final.

I agree to abide by the decision of the committee of three appointed by the Bovel Manufacturing Co., and enter this competition on that distinct understanding.

Signature.....

Address.....

(State whether we are to address you as Mr., Mrs. or Miss.....)

Please write very plainly. Cut out this advt. and send it to us after filling in the blank line. The filling in of the missing line may take a little thought and time, but it should be time and energy well spent. There are over five hundred prizes, any one of which is well worth the time and energy that we ask you to expend. Surely this is enough for everyone! Write to-day. Do not send any money. We will answer your letter immediately, and tell you of the simple condition that must be adhered to. Address very plainly

BOVEL MANUFACTURING CO., Dept. 10, MONTREAL

## LIVINGSTON'S OIL CAKE MEAL

OLD PROCESS

Nothing is better for fattening steers quickly and putting them on the market in prime condition than Oil Cake Meal. Thousands of Canadian and English stockmen use more and better milk when fed Livingston's Oil Cake Meal. Also used for horses, sheep and hogs. Write for information regarding prices, etc., etc., to

**DOMINION LINSEED OIL CO., LIMITED**  
Montreal, Que. Baden, Ont.

## SHORTHORNS AND LINCOLN SHEEP.

Two bulls, 11 and 13 months old—a Miss Ramsden and a Beattie, both by the good breeding bull, Proud Gift =6077= (Imp.), also cows and heifers in calf by him. Inspection solicited. Always have some choice Lincoln sheep for sale at reasonable prices.  
J. T. GIBSON, DENFIELD, ONTARIO.

## A. EDWARD MEYER,

BOX 378, QUELPH, ONT.,

BREEDS

## Scotch Shorthorns

exclusively. Herd bulls: Scottish Hero (Imp.) =56042= (90065), a Shethin Rosemary; Gloster King =68708= 283804, A.H.B. & Cruickshank Duchess of Gloster. Young stock for sale. Long-distance phone in house.

M  
A  
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L  
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Winners at the leading shows have been sired by bulls bred here. We can sell you a good bull to head your herd of SHORTHORNS, or for use on your good grade cows. The bull catalogue explains the breeding. Write for it.

**John Dryden & Son, Brooklin, Ont.**

Stations: Brooklin, G. T. R.; Myrtle, C. P. R.  
Long-distance telephone.

S  
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## R. H. REID,

Glover Lea Stock Farm,  
PINE RIVER, ONT.,

## BREEDER OF SHORTHORN CATTLE

Golden Cross (Imp.) at head of herd.

## FLETCHER'S SHORTHORNS & YORKSHIRES

Present offering: Young bulls, red or roan, 10 to 13 months old, sired by my noted stock bull (Imp.) Joy of Morning; also heifers and cows in calf. In Yorkshires: Choice sows bred, and boars fit for service, from Imp. sire and dam.

GEO. D. FLETCHER, Binkham P.O., Ont.  
Erin Sta., C. P. R.

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

## Heavy Steers

A steer receiving a small amount of Dr. Hess Stock Food twice a day in his grain will consume, digest and assimilate larger quantities of coarse fodder and make steady growth from start to finish. This is because Dr. Hess Stock Food acts upon the digestive organs, keeping them in perfect health and activity.

Dr. Hess Stock Food is the prescription of Dr. Hess (M.D., D.V.S.) and contains tonics, iron and nitrates necessary to aid digestion, make good blood and cleanse the system.

**DR HESS STOCK FOOD**

is a perfect animal tonic. It causes rapid growth, increases milk yield and insures good health and condition in all farm animals.

Sold on a written guarantee.

100 lbs. \$7.00; 25 lb. pail \$2.00

Smaller quantities at a slight advance. Duty paid.

Where Dr. Hess Stock Food differs in particular is in the dose—it's small and fed but twice a day, which proves it has the most digestive strength to the pound. Our Government recognizes Dr. Hess Stock Food as a medical compound and this paper is back of the guarantee.

If your dealer can't supply you, we will.

DR. HESS & CLARK, Ashland, Ohio, U.S.A.

Also manufacturers of Dr. Hess Poultry Pan-a-co-a and Instant Louse Killer.

## Shorthorns—Sweepstakes herd at

Wallacetown, Rodney, Ridgetown, and Highgate, 1907. We have for sale at reasonable prices 3 choice young bulls, 1 red and 2 roans, of grand type and quality. All sired by the good breeding bull, Ridgewood Marquis #4995, a son of the old champion, Epicly Marquis. Also a few young cows and heifers. JNO.

LEE & SONS, Highgate, Ont.

## T. DOUGLAS & SONS

STRATHROY, ONT.

Breeders of Short horns and Clydesdales. 15 bulls, 50 cows and heifers, 1 imp. stallion, imp. and home-bred shillies. Write us what you want or come and see our stock. Farm 1 miles north of town.

## SHORTHORNS

One roan Shorthorn bull highly bred—will sell at a great bargain. One pure white, two months old, cheap for quick sale. Cows and heifers all ages. Also a number of Chester White pigs that I will sell cheap if sold at once, as I have not the room to winter them.

B. ALLAN BLAOK, Kingston, Ont.

## Maple Grove Shorthorns

Herd headed by the grand show bull, Starry Morning. Present offering: Imported and home-bred cows and heifers, also a few young bulls. Terms and prices to suit the times. C. D. WAGAR, Enterprise Stn. and P.O. Addington Co.

## SHORTHORNS

For want of stable room will sell cheap 10 heifer calves, 12 yearling heifers, 4 two-year-old heifers in calf, and 3 red bulls about 14 months old. Right good ones. CLYDESDALES.—Two-year-old mare in foal, and a good pair 4 and 5 years old. Write, or come and see them.

JAMES McARTHUR, GOBLES, ONTARIO.

## J. Watt & Son

For sale—2 high-class bull calves of the richest breeding; 20 young cows and heifers, a number of which are well gone in calf to imp. Pride of Scotland. Moderate prices. Correspondence invited.

Salem P.O., Elora Sta. G.T.R. & C.P.R.

## QUESTIONS AND ANSWERS.

Veterinary.

### CURB.

Two-year-old colt has a hard lump, the size of a plum, just below the back of the hock. J. V. B.

Ans.—This is a curb, and is very hard to remove. Repeated blistering will reduce it. Get a blister made of two drams each of biniodide of mercury and cantharides, mixed with two ounces vaseline. Get him shod on hind feet with calks three-quarters of an inch higher at heel than toe. Clip the hair off the part. Tie so that he cannot bite it, and rub well with the blister once daily for two days. On the third day wash off and apply sweet oil. Let him loose in a box stall now, and oil every day. As soon as the scale comes off, tie up and blister again, and, after this, blister once every month until ready to turn out on pasture. V.

### SUSPECTED INFECTIOUS ABORTION—SUPPURATIVE MAMMITIS.

1. In the spring of 1906 I purchased a pure-bred bull from a reputable breeder, paying a good long price for him. He was then nearly three years of age, and said to be quick and sure. I used him on my herd during the summer of 1906, and again during the season of 1907, and I find it very difficult to get my cows to breed; a trouble which we have never had as far as I can remember. In order to explain more fully just how matters stood, I am sending you a table showing the dates on which our cows were served during the two seasons. At first I was inclined to lay the blame on the bull, but I found that some of my neighbors were having the same difficulty; I can name four of the best herds in this vicinity that are giving their owners the same trouble. Then, I thought that contagious abortion had gotten into our herd, but only one cow aborted, and I see no signs of it this year. Five cows did not have calves at all last spring, but are safely in calf this year. All the rest came in all right, with the exception of a few old cows, which we sold from the herd as canners, and which I know nothing about. Now, if this is abortion, why don't the cows abort?

2. I have a sow that did not dry off properly when the litter of pigs were taken away from her. The greater part of her udder is all right, but one teat, or to be more explicit, one section of her udder swelled up about twice the size of a man's fist. She was shut in a somewhat dark pen, and I did not notice anything wrong until small lumps began to form on the inflamed part. Those lumps have begun to break out, and pus escapes from them. What is the best thing I can do with her? K. W.

Ans.—1. An examination of the table, giving dates of service of the different cows, convinces me that it isn't an outbreak of infectious abortion. So far as known but one cow aborted. In most cases, the periods of oestrus have been fairly regular, between three and four weeks. In other cases, when about two months elapsed, it is quite possible one period passed unnoticed. The trouble, in my opinion, is with the bull. He probably is too fat, or does not get sufficient exercise. If quite fat, reduce him in flesh, and see that he gets daily exercise in a paddock or barnyard. The fact that in most cases the cows at last conceived proves that the bull is potent, but not at all services, and the reason of this must be due either to congenital sexual weakness, or to weakness acquired by food and management. If the former, little can be done. If the latter, attention to conditions will doubtless be followed by an improvement.

2. All abscesses should be freely opened, and the cavities flushed out twice daily with a five-per-cent. solution of carbolic acid in water until healed. Give her two drams hyposulphite of soda twice daily in her food. V.

The three following judges have been selected for the 1908 International Horse Show, at Olympia, London, England: Heavy-harness class, Mr. Alfred Vanderbilt, hunters, Hon. Adam Beck; trotting horses, Mr. A. B. Maclay; saddle horses, Mr. Thos. Hitchcock, Jr.

## Salem Herd of Shorthorns



The number of important premiums won by this herd is excelled by no other. It has placed herd headers that have earned distinction for their buyers in many leading herds of the United States and Canada. At present there are a number of this kind for sale; also some high-class heifers. They are bred, fed and priced to the advantage of buyers.

J. A. WATT, SALEM P. O.

Elora Stns., G.T. and C.P.R., 13 miles north of Guelph. Long-distance phone.

## 1864 Maple Lodge Stock Farm 1907

An exceptionally choice lot of heifers and young bulls for sale now. Best milking strains.

A. W. Smith, Maple Lodge P.O., Ont.

## Valley Home Shorthorns AND BERKSHIRES.

Our herd numbers sixty-five head. We are prepared to give bargains to suit all who wish to buy from one animal up to a carload of females, and 12 bulls from 9 to 18 months old. Also 55 Berkshires of prolific strains.

S. J. PEARSON, SON & CO., Meadowvale, Ont.

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

## 10 IMPORTED BULLS 10

Recently arrived from Scotland in good condition. They are a superior lot. Selected for herd-headers. We also have a number of Canadian-bred bulls of excellent quality, and representing the choicest breeding. Females suitable for show or breeding purposes.

W. G. PETTIT & SONS, FREEMAN, ONTARIO.

Burlington Jct. Sta., G. T. R.

Bell telephone at each farm.

## MAITLAND BANK SCOTCH SHORTHORNS!

7 bulls, superior breeding, 11 to 15 months; 5 high-class bull calves 5 to 8 months; and a number of cows and heifers and heifer calves; at half prices formerly asked. DAVID MILNE, Ethel, Ont.

## MAPLE GROVE SHORTHORNS

Scotch and dairy bred; up-to-date in type; prize-winners at the local shows. A number of 1 and 2 year old heifers, 1 year old bull, and one 5 mos. old—the last will make a show bull. Flora bred—will be sold easy. L. B. POWELL, Walkenstein P. O. and Stn. C. P. R.

## Six Thick, Thrifty Shorthorn Bull Calves JUST HOME FROM SCOTLAND.

They are ready to use, and I am going to sell them. Will change for your old imported bulls if good. Will also sell imported cows and heifers and home-bred bulls; also some good Shropshire and Cotswold ewes, bred to great imported sires.

ROBERT MILLER, STOUFFVILLE, ONTARIO, CANADA.

## PLEASANT VALLEY SHORTHORNS

For sale: 3 young bulls by Old Lancaster Imp., from imp. dams, including Lancaster Victor, first prize sr. bull calf at Don at Sherbrooke, second at C. N. E., Toronto. Correspondence solicited. Inspection invited.

Geo. Amos & Son, Moffat Stn. & P.O. C. P. R. Farm 11 miles east of City of Guelph.

## Queenston Heights SHORTHORNS

All Scotch. The thick-fleshed, early-maturing sort. Special prices on young stock, either sex. Ask for catalogue with sample pedigrees.

Hudson Usher, Queenston, Ont.

Farm three miles north of Niagara Falls.

## Scotch Shorthorns

Our breeding females are very heavy milkers, also good individuals. For sale are a few young bulls and a few choice heifers, all from imported sires, and a number from imported dams. The imported Bruce Mayflower bull, Royal Bruce 55038, heads the herd. R. J. DOYLE, Box 464, OWEN SOUND, ONT.

## GREENGILL HERD OF HIGH-CLASS SHORTHORNS.

We offer for sale choice young bulls from 6 to 12 months old, sired by imp. Lord Roseberry, also cows and heifers, with calf at foot or bred, either imp. or Canadian bred.

R. MITCHELL & SONS, Nelson P. O., Ont., Burlington Jct. Sta.

## Brown Lee Shorthorns!

Nonpareil Victor—63907—at head of herd. Young stock for sale at all times. Prices very reasonable. Avr. C. P. R.; Drumbo, G. T. R.

DOUGLAS BROWN, Avr. Ont. PLEASE MENTION THIS PAPER

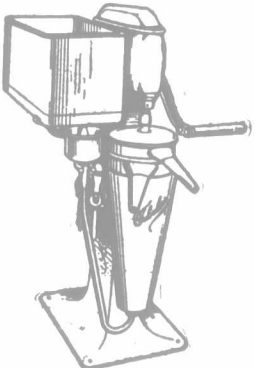
# LISTEN!

We are offering **Special Bargains in Shorthorns** just now. The Reason is that we have a **Large Stock and Feed is Scarce**. Most of you know the **Kind of Cattle** we have, so that it is useless repeating the usual formula. In order to **Reduce Our Stock**, so that we may be able to pull through the winter, we **Will Sell at Prices** which will **Well Repay the Purchaser** who has feed to keep them until spring. We have pretty nearly anything **You** want. If you can not come to see, write and tell us as nearly as possible what it is, and we will frankly tell you whether or not we can supply.

**John Clancy, Manager.** **H. Gargill & Son, Gargill, Ont.**

## Because You Need The Money

It's your business and if you don't attend to it, who will? You cannot afford to keep cows for fun. That isn't business, and, furthermore, it isn't necessary. There is money in cow keeping if you go at it right, and besides there is more fun in going at it right than there is in staying wrong.



You need a Tubular Cream Separator because it will make money for you; because it saves labor; because it saves time; because it means all the difference between cow profits and cow losses.

Look into this matter; see what a Tubular will do for you and buy one because you need it.

How would you like our book "Business Dairying" and our catalog B. 12 both free. Write for them.

**The Sharples Separator Co.**  
West Chester, Pa. Chicago, Ill.

### GOSSIP.

A resolution has been passed by the British Berkshire Society to the effect that a registered prefix can only be used for animals bred by the owner. It has also decided that the name of a pig cannot be altered in the herdbook.

Messrs. A. Kennedy & Son, Vernon, Russell Co., Ont., write: "We are sending you a short account of our stock and some of the sales made through your paper. We have at present about 40 head of Ayrshires left after a good season of sales. Our stock are looking very well, considering the dry summer we have had in this section, and shortage of feed. We have a few extra good-doing bulls left, out of producing dams that are also show animals. We are through using our present stock bull, and are offering him for sale. His stock will speak for himself, as they are very stylish and of a producing type, with extra large teats. In females, we are sold out at present. Some of the latest sales are: An extra fine yearling bull to the Manitoba Agricultural College, Winnipeg; one yearling bull to J. C. McArthur, Rockside, Ont.; one yearling bull to W. W. Trimble, Munster, Ont.; two two-year-old heifers to S. N. Doyle, Sudbury, Ont.; a cow and calf to Geo. E. Dennison, Ottawa, Ont.; two cows and one heifer and four heifer calves to Collier Bros., Beachville, Ont.; one heifer to T. J. Crowley, Potsdam, N. Y. The young bulls for sale are tubercular tested."

W. G. Pettit & Sons, Freeman, Ontario, write as follows: "We have had a good enquiry for Shorthorns lately, and wish to report the following recent sales: To David Sinclair, Innisfail, Alta., an extra good young bull belonging to the Campbell Clementina family. This bull, which was a member of the calf herd we exhibited at Toronto, promises to develop into a deep, thick, heavy bull, and should prove a valuable addition to Mr. Sinclair's herd. He also purchased two young cows, representing the Kibbean Beauty and Fancy families, and each having a red bull calf at foot. Wm. Hiscott, of Virgil, Ont., got a calf that cannot fail to make a good one. He belongs to the popular Marr Roan Lady family, is sired by Imp. Prime Favorite, and has for his dam a half-sister to the celebrated Choice Goods. This combination should be good enough for any herd. Mr. Milne, of Alliston, selected the thick-fleshed Jilt calf, which stood fourth at Toronto this year. Mr. Milne has not a large herd, but that did not deter him from buying one of the best bulls he could find. To A. S. A. Gilman, Center, Sandwich, N. H., we shipped a very attractive roan calf of the Cruickshank Village tribe. He is of the type that is usually seen at winning end of class in our leading exhibitions, and, as it is the first shipment we have ever made to New Hampshire, we are pleased to be able to send a good one. Probably the most important of our recent sales is that of the young imported bull, Scotch Bank, which we secured from the recent Duthie-Marr sale. This bull goes to head the herd of A. C. Shallenberger, Alma, Neb., which is becoming very prominent in the U. S., owing to its successes in the largest shows, including the International. Scotch Bank is a bull of extra good type, and should make an excellent stock-getter. We are having a great deal of enquiry about our recently imported bulls, and breeders wishing to secure one should not delay, as, owing to the limited number, they will not last long. In closing, we wish to thank the breeders for their liberal patronage during the past year, and to extend to them our best wishes for a Bright and Prosperous New Year."

## Shorthorns! BELMAR PARC.

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

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

Nonpareil Archer, Imp. Fred GR, Imp. Marigold Sailer. Nonpareil Eclipse.

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

An unsurpassed lot of yearling heifers.

## Brampton Jerseys

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

Advertise in The Farmer's Advocate

**Jerseys & Extra Choice Young Bulls For Sale, 8 and 9 months old, grandsons of the great Financial King, out of large, heavy-milking dams. Inquiries solicited. ARTHUR H. TUFTS, Box 111, Tweed, Ont.**

**SHANNONBANK Ayrshires and Yorkshires**—Am now offering 3 young bulls 10 months old, and half a dozen heifer from 6 to 12 months of age, bred from producing, show sire and dams. Yorkshires, both sexes, imp. in dam sire and dam, 6½ years of age. **W. H. TRAN, Cedar Grove P. O., Locust Hill Sta., C. P. R.**

## STONEYGROFT STOCK FARM, St. Anne de Bellevue, Quebec.

(Adjoining the new Macdonald College.)

Breeders and Importers of High-class

**Ayrshire Cattle, Clyde Dale Horses, Yorkshire Swine and Collie Dogs**

Anything for sale. We offer especially a few select young bulls to clear cheap. Orders booked for spring pigs.

**HAROLD M. MORGAN, Prop.** **E. BJORKELAND, Manager.**  
Bell Phone connection.

**D. M. Watt, St. Louis Station, Quebec,** breeder of

**HIGH-CLASS AYRSHIRES**

Canadian and Scotch-bred. All of deep milking qualities.

**AYRSHIRES FROM A PRIZEWINNING HERD**

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

**Hillview Herd of Prize-winning AYRSHIRE CATTLE.**

All animals bred and carefully selected for size, constitution, long teats and deep-milking qualities. Select animals of both sexes for sale at reasonable prices. For further information and prices write

**A. KENNEDY & SON, Hillview Stock Farm, Vernon, Ont. Winchester Station, C. P. R.**

## AYRSHIRES! SEE STOCK NOTES.

To dairymen:—We offer cheap 3 young bull calves, bred from large, heavy-milking cows with good teats.

To breeders:—We have several very choice bred young bull calves, combining showing and dairy qualities; 3 young bulls fit for service; spring females, any age, either milking or dry. Orders taken for importing in 1908. Our J. Betsen is now in Scotland.

Phone Campbellford. **ALEX. HUME & CO., Montic, Ont.**



**ROCK SALT** for horses and cattle, in ton and car lots.

**TORONTO SALT WORKS, TORONTO.**

Subscribe for "Farmer's Advocate"

**AYRSHIRES** Young bulls from producing dams and same sire, from 7 months up to 3 years. Have good ones and will speak for themselves. **H. DYMUNT, Hickory Hill Stock Farm, Clappison, Ont. Dundas Station and Telegraph.**

**STOCK FOR SALE**—At Springsburg Stock Farm, Williamsburg, Ont. 5 1-year old Ayrshire bulls. Females any age. 12 Oxford Down ram lambs and a number of young ewes. Prices reasonable.

**H. J. WHITTEKER & SONS, Props.**

## Shorthorns, Cotswolds, Berkshires

For sale: 2 bulls 18 months, 1 bull 12 months, and 4 from 7 to 9 months; and females all ages. In Cotswolds a few good ewe lambs. Nothing to offer in Berkshires.

**CHAS. E. BONNYCASTLE, P. O. and Station, Campbellford, Ont.**

## SHORTHORNS AND LEICESTERS.

For sale: Young bulls, age 7 to 12 months, by Imp. sire, and from grand milking dams. Leicesters: A number of choice rams and ram lambs, also a choice lot of shearing ewes now bred to a good ram of the finest type and breeding, at easy prices for quick sale. **W. A. DOUGLAS, Caledonia Station, Tuscarora P. O.**

## Glen Gow Shorthorns

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

**WM. SMITH, Columbus P. O., Brooklin & Myrtle Sts.**

## WILLOW BANK Shorthorns and Leicesters.

ESTABLISHED 52 YEARS. Have a special good lot of either sex to offer in Shorthorns of various ages. Also a few choice Leicester sheep. Write for prices, or, better, come and see. Choice quality and breeding. **JAMES DOUGLAS, CALEDONIA, ONT.**

**Shorthorn Bulls**—Ready for service. One will make a show bull. Also young things from Matchless, Crimson Flower, Miss Ramsden, Rosemary, Diamond and Lady Fanny dams, the get of Chancellor's Model. Prices to suit times. Come and see. **ISRAEL GROFF, Elmira, Ont.**

**Shorthorns & Leicesters** for sale. Two young bulls for sale from good milking dams. Leicesters—a few females for sale, different ages. **JOHN LISHMAN, Hageraville, Ont., P. O. and Stn.**

**ROSE COTTAGE STOCK FARM**—2 Short-horn bulls for sale—14 and 30 months—one red and one roan. The red a Matchless. The roan, sired by Royal Prince, is a full brother to Fair Queen and Queen Ideal, the two champion females of two continents. **H. K. Fairbairn, Thedford, Ont.**

# RAW FURS

**E. T. CARTER & CO., TORONTO, ONT.**

The Largest WOOL, HIDE & FUR HOUSE in Canada

CONSIGNMENTS SOLICITED.  
Write for LATEST PRICE LIST.  
WE PAY ALL Express Charges.

**SPRING BROOK HOLSTEINS AND TAMWORTHS.**—Holsteins of richest breeding and highest production. Tamworths of best British blood and ideal bacon type. Herd headed by prizewinning Imp. Knowle King David Stock of all ages and both sexes for sale. Young sows bred to imp. boar. Write, or come and see: **A. G. HALLMAN, Braslau, Waterloo Co., Ont.**

**EVERGREEN FARM HOLSTEINS** are headed by the richly-bred bull, Sir Merona's Favorit. Dam, Favorit 7th, and sire's dam, Merona 3rd, have records averaging 23½ lbs. butter in 7 days—85% fat. Young bulls out of Advanced Registry cows; also young females. **F. O. PETTIT, Burgessville, Ont.**

## Holsteins and Yorkshires.

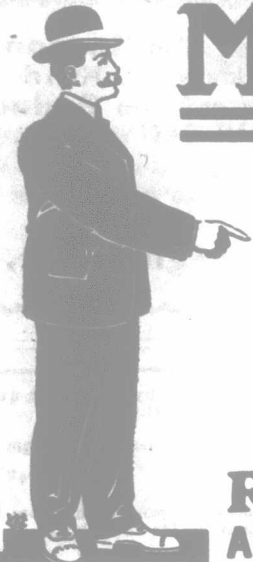
**R. HONEY, Brickley, Ontario,** offers a very choice lot of young bulls also boars and sows fit to mate.

## "THE MAPLES" HOLSTEIN HERD

Young bulls fit for service. Bull calves. Also a few choice heifer calves.

**Walburn Rivers, FOLDEN'S, ONT.**





# Mr. FARMER

Do You  
Know  
PROF.  
SHAW



The Great  
LIVE  
STOCK  
Authority



## READ WHAT HE SAYS ABOUT STOCK FEEDS AND STOCK FEEDING

Professor Thomas Shaw is one of the world's greatest authorities on feeding and care of live stock. He will be recognized as one of the old time Guelph Agricultural College Professors and one of the best known feeding authorities. He has devoted nearly fifty years of his life to scientific feeding experiments, the results of which have saved our farmers many millions of dollars. He is the author of numerous text books which are in daily use in all agricultural schools.

On the subject of feeds and feeding here is some plain, practical talk by Prof. Shaw. Every farmer will do well to tack this up in his feed barn. Put it where you can follow its teachings literally—word for word—because you cannot get any better advice on this important topic. He says:

1st.—“A mixed feed of grains, corn, oats and barley, (ground and properly balanced, that is, the right quantities of each to produce a feed that contains the proper nutritive elements, protein carbohydrates and fat) will give better results and for a longer period than any one grain of equal or similar nutritive character. The reason is plain. They form a feed that supplies power, energy, heat, life, flesh and fat in the correct form from which the animal derives the greatest benefit. Again stock will not tire of a mixed ration and hence relish it better.

2d.—“A mixed grain feed of corn, oats and barley fed for meat or milk production in ground form, mixed with fodder or ensilage will effect a *saving of 20 per cent in feed* over the usual method of feeding whole grain, besides producing far greater returns in milk and meat.

3d.—“No single grain furnishes a perfectly *balanced* ration for farm stock.

4th.—“Corn, oats and barley, *properly blended*—that is, *balanced* as regards nutritive value, make an ideal grain ration for horses, cattle, sheep and swine, in fact, one that cannot be easily surpassed.

5th.—“Outside the corn belt a mixed ration of ground corn, oats and barley, and sometimes bran, should be a standard grain ration for meat and milk production and also for heavy farm horses.

6th.—“Corn, oats and barley in a properly balanced ground ration forms a feed that furnishes the work horse with flesh, fibre and muscle making tissue, enabling him to stand hard work and maintain good life and flesh.”

Our own feed experts have worked along similar lines, and we have produced a feed such as Professor Shaw recommends. It is—

## Schumacher Stock Feed

a perfectly balanced ration of the best feeding parts of Corn, Oats and barley products. This feed is the result of practical experience. There is not a particle of theory about it. We have watched the effect of various feeds upon horses in daily use on the farm, on the road and in the lumber camps; upon market, breeding and dairy cattle; upon sheep and hogs. Schumacher Stock Feed is the result of these observations and experiments. It is the feed that produces the greatest net results in dollars and cents.

Schumacher Stock Feed furnishes feed variety. This means that live stock of all kinds will relish it better and lick up the last morsel. It furnishes in the correct proportions the elements that make flesh, bone, muscle,

tissue, fat and energy. It puts the bodily organism into condition to produce *more milk, more meat, more power*, at a lower cost than you have heretofore thought possible.

Feeding whole grain is like throwing money away, because a large percentage passes through the animal in an undigested condition. You can sell your grain and buy Schumacher Stock Feed and make money by the transaction. It is finely ground and thoroughly kiln-dried. Nothing is lost or wasted in the process of digestion. Try Schumacher Stock Feed for 30 days and you will agree with thousands of other progressive feeders that it is truly *the feed to feed for any need for every breed*. It is sold only in sealed and branded sacks with the guaranteed analysis on every sack.

ALL GOOD DEALERS SELL IT. IF YOUR DEALER DOES NOT HAVE IT, WRITE TO US.

The Quaker Oats Company Peterborough, Ont.

### QUESTIONS AND ANSWERS.

#### Miscellaneous.

#### DELAYED MAIL—EWE AND PEDIGREE.

1. Whom should I notify in regard to delayed mail?

2. I bought a ewe as pure-bred, and got a pedigree and transfer. The number on the ear tag of the sheep corresponds to the number on the pedigree, but I find the ewe to be much older than what is in pedigree, which was the agreement. What should I do?

3. Can I claim damages? A. D. C. B.

Ans.—1. The postmaster, and then, if necessary, the nearest Division Inspector of post offices.

2. You should return the animal, and demand a refund of the price paid, and then, if really necessary, sue.

3. Yes.

#### SETTING A FENCE IN LINE.

Am about to build a piece of line fence.

As I have not a sufficiently well-trained or practiced eye for sighting by stakes to get fence on a true straight line, is there any other course I could follow by which I might set it straight, and prove it to be right? T. D.

Ans.—We know of no method for a long piece of fence that does not employ sighting at some stage of the operation. A good plan is to set up a fine stake at each end of fence, and then sight two or three other fine ones in line between. Have a short board, about ten inches wide, with a notch sawed in one end, where a hole is to be dug, lay the board on the ground, with the angle of the notch on the line of the fence. This has to be done by sighting, of course. With a spade or sharp stick, draw a mark along each side of the board, so that it may be put back in the same spot. Remove the board, and dig the hole. Then place the board in position again, and set the post so that it centres in the notch. This method is largely used as an aid in planting fruit trees. It is found easier to sight the board in line than the trees.

#### Veterinary.

#### DISLOCATION OF PATELLA.

Two-year-old colt occasionally drags one of his hind legs. We noticed it first when he was a sucker. W. S. B.

Ans.—The patella (stifle bone) becomes dislocated. Get a blister made of two drams each of biniodide of mercury and cantharides, mixed with two ounces of vaseline. Clip the hair off the front and inside of stifle joint. Tie so that he cannot bite the part. Rub well with the blister once daily for two days, and on the third day wash off and apply sweet oil. Turn him loose in a box stall now, and oil every day. As soon as the scale comes off, tie up and blister again. Keep him as quiet as possible all winter, and, after this, blister once every month until ready to turn on grass. This is a condition that takes a long time to cure, and in some cases the recurrence of the dislocation cannot be prevented. V.

#### UNTHRIFTY HORSES.

1. Three-year-old mare swells in her legs; her coat is rough, and she passes a little milky urine frequently.

2. Eight-year-old horse is always thin, and his legs swell when he stands. It is hard to keep his kidneys right. He had water-bary last spring. B. T.

Ans.—1. Give her a purgative of eight drams aloes and two drams ginger. Feed bran only for twelve hours before and twenty-four hours after giving purgative. Follow up with four drams nitrate of potassium once daily four four days. Feed lightly, and give regular exercise.

2. Treat the same as No. 1, and, in addition, give a tablespoonful of the following mixture three times daily, viz., equal parts sulphate of iron, gentian, ginger, mix young and bicarbonate of soda; also feed him a cupful of boiled flaxseed mixed with damp sweet rolled oats, or boiled oats, once daily. V.

#### STEVENS DAIRY FARM HOLSTEINS

I have now for sale two bull calves 6 months old sired by a grand son of Pi tertie Hengerveld's Count De Kol; also four choice young cows due to calve in February.

W. C. STEVENS,  
PHILLIPVILLE P. O., DELTA STATION.

#### Lyndale Holsteins

Bull calves for sale out of cows with records of from 15 to 20 lbs., and sired by a grandson of Pi tertie Hengerveld's Count De Kol.

BROWN BROS., LYN., ONTARIO.

#### MAPLE GLEN HOLSTEINS

Herd of 35 head with A. B. O. breeding, backed up by butter tests of over 16 lbs. as a two-year old to over 26 lbs. as a cow. A good herd to select from. Two spring bull calves on hand. A R. O. test of one is over 36 lbs. for dam and g. dam. Come and inspect the herd. Any animal will be offered for sale.

G. A. GILROY, GLEN BUELL, ONT.

#### QUEEN CITY HOLSTEINS.

Over 40 head high-class Holsteins. 10 or 15 could be spared. Almost any animal in the herd for sale. High-class stock bulls used. Farm situated 7 miles north of Toronto, near Metrop litan Street Ry. Write: R. F. Hicks, Newton Brook P. O.

HILTON STOCK FARM—Holsteins, Cotswolds and Tamworths—Present offering: Some young cows; a nice lot of young pigs; few boars six months old, and sows in pig. R. O. MORROW & SON, Hilte P. O. Brighton Tel. and Str.

Holstein Bulls For sale: One three-year-old; active, sure and perfectly quiet. Also bull calf two months old. Prices right for this class of stock. JAS. M. BOYD, Grey Gables Stock Farm, Lynden, Ont.

#### HOLSTEINS

large herd. This is a chance of a lifetime to buy good cattle at bargain prices. The best way: arrange to come and look the herd over. If you cannot, we will do our best for you by correspondence. Also a few young bulls. 100 head to select from. Imported Pontiac Hermes, son of Hengerveld De Kol world's greatest sire, head of herd. All leading breeds represented. H. E. GEORGE, Crampton, Ont. Putnam station, near Ingersoll.

#### RECORD OF MERIT HOLSTEINS

Herd 110 strong. Over 40 head now in the Record of Merit. Two of the richest-bred bulls in Canada at head of the herd. For sale: 15 bulls, from 2 months to 1 year of age, all out of Record of Merit cows and sired by the stock bulls.

P. D. EDM, Oxford Centre P. O., Woodstock Station.

#### RIVERSIDE HOLSTEINS

For sale: Eight young bulls from 3 to 8 months old, out of Record of Merit cows, sired by Johanna Rue 4th's Lad and Sir Pi tertie Posch DeBoer, whose dam and sire's dam average in official test 57.87 lbs. butter in 7 days, and 87.6 lbs. milk 1 day.

J. W. RICHARDSON, Caledonia, Ont.

#### Annandale Great Dairy Herd

Holsteins and Ayrshires

Homestead Holsteins Yearling bulls for sale, out of cows with records from 16 to 21 lbs., and sired by Retic Bros' famous bulls, Cornelius Posch and Count Mercena Posch. Write for prices. G. & F. Griffin, Box 43, Burgessville, Ont.

#### FAIRVIEW HERD

is the place to buy your next bull. I can furnish you with a bull sired by our great herd bull, PONTIAC KORNDYKE, who has 19 daughters in the last year's report that made official records from 12 pounds at less than two years old to over 31½ pounds at four years, and the whole number averaged over 41½ fat. No other bull in the world has ever made such a showing in one year. I have just tested another of his daughters that made 26.40 pounds butter in seven days with second calf. I have over 50 cows and heifers in calf to him. Come and look my herd over before making your selections elsewhere. E. H. Dolier, Heuvelton, St. Law. Co., N. Y. near Prescott

#### Maple Hill Holstein-Friesians

Bull calves from No 1 dams, sired by bulls with great official backing. Write for prices.

G. W. Clemons, St. George, Ont.

#### ONLY BULLS, 4 to 10 months old, for sale at present

Bred from great producing ancestors. Bred right. Fed right.

GEO. RICE, Tillsonbu g, Ont.

#### Shropshires!

Choice shearing ewes bred to good ram, also ram and ewe lambs. LLOYD-JONES BROS., Burford, Ont.

# Ring-Bone

There is no case so old or bad that we will not guarantee

**Fleming's Spavin and Ringbone Paste** to remove the lameness and make the horse go sound. Money refunded if it ever fails. Easy to use and one to three 45-minute applications cure. Works just as well on Sidebone and Bone Spavin. Before ordering or buying any kind of a remedy for any kind of a blemish, write for a free copy of Fleming's Vest-Pocket

**Fleming's Vest-Pocket Veterinary Adviser** Ninety-six pages of veterinary information, with special attention to the treatment of blemishes. Durable bound, indexed and illustrated. Make a right beginning by sending for this book. FLEMING BROS., Chemists, 75 Church Street, Toronto, Ontario

## Southdowns

FOR SALE: 2 imported prizewinning rams, and 60 home-bred and imported ewes. COLLIES.—Puppies by champion sire, and out of prizewinning dam.

**Robt. McEwen, Byron, Ont.**  
**Farnham Farm Oxford Downs**

We are now offering a number of select yearling rams and ram lambs, sired by imported ram, for flock headers; also yearling ewes and ewe lambs. Price reasonable.

**Henry Arkell & Son, Arkell, Ontario.**  
Arkell, C. P. R.; Guelph, G. T. R.

## Shropshires and Cotswolds

I am now offering 35 shearing rams and 50 shearing ewes, also an extra good lot of ram and ewe lambs from imported Minton ewes and Buttar ram.

**JOHN MILLER,**  
Brougham P.O. Claremont Stn., C.P.R.

## Sheep Breeders' Associations.

American Shropshire Registry Association, the largest live-stock organization in the world. G. Howard Davidson, Pres., Millbrook, N. Y. Address correspondence to MORTIMER LEV BRING, Secretary, Lafayette, Indiana. ON

**FAIRVIEW SHROPSHIRE**  
We wish our customers a prosperous New Year. Allow us to heartily thank you for your many kind words of appreciation of sheep sent in 1907. We congratulate ourselves in not having a single complaint of sheep sent out all the year. We still have a few good ewes and ewe lambs, bred to or sired by our famous champion rams, J. & D. J. CAMPBELL, Fairview Farm, Woodville, Ont.

## SHROPSHIRE

Choice breeding ewes for sale at reasonable prices. White Wadsworths at all times.

**W. D. MONKMAN, BONDHEAD, ONT.**

**Leicesters** A few choice ram lambs and ewes of various ages. Also DUROC JERSEY SWINE. **MAC, CAMPBELL & SONS, Harwich, Ontario.**

## SHROPSHIRE

Can sell about 90 Ram Lambs. Mostly by an Imp. Buttar-bred ram.

**GEO. HINDMARSH, Alisa Craig, Ont.**

## LARGE ENGLISH YORKSHIRES

Pigs of the most approved type of both sexes all ages, for sale at all times. We have more imported animals in our herd than all other breeders in Canada combined. We won more first prizes at the large shows this year than all other breeders combined. We won every first but one and all silver medals and 300 prizes at Toronto and London, and at St. Louis we furnished all the first-prize hogs in the breeding classes except two; also supplied both champion and grand champions. Prices reasonable.

**D. O. FLATT & SON, Millgrove, Ont.**

**East Bank Herds** Large English Yorkshire and Berkshire Swine, Shorthorn Cattle and Barred Rock Poultry.—Quality, coupled with breeding, in all above breeds. Snaps in young sows bred and ready to breed. Boars fit for service. Suckers either breed or sex. Also cows and calves; some prizewinners. Barred Rock cockerels, 75c. and \$1. Satisfaction guaranteed. Write, call or phone.

**IRA L. HOWLETT, KELDON P. O.**  
Shelburne Station, C. P. R.

**Yorkshires**—Boars ready for service; sows ready to breed, and bred; young pigs just weaned and ready to wean. Cotswold and Shropshire rams, yearlings and lambs, registered. **GEO. M. SMITH, Haysville, Ont.**

## QUESTIONS AND ANSWERS. Miscellaneous.

### COMPUTING TIME.

1. A commences to work for B on the 15th day of February, at noon, for one month. When will his time be in?
2. In reckoning time for a month, do you reckon from date to date, or 26 working days?
3. If the 24th of May was in, would man have to put it in extra?
4. How many days can a man claim in a year working on the farm?

**J. S. Ans.—1.** At the expiration of the 14th day of March. The law commonly disregards the fraction of the day. There are exceptions to this rule, but this case does not come under the exceptions. Morally, however, the man would be expected to work until noon of March 15th.  
**2.** From date to date.  
**3.** No.  
**4.** Ordinarily, and subject to the doing of "chores," sixty, including Sundays.

### FERTILIZER FOR CORN AFTER SOD.

I would like a little advice, through your paper, about growing corn on hard clay land, plowed out of pasture last October and top-dressed when in pasture. This land is well drained, but is not very rich. Would it be advisable to plant corn for silo on this land? Would it pay to buy fertilizer for it, and, if so, what kind would you advise us to buy?

**J. J. T. Ans.—**Corn is the ideal crop to follow sod, and a manured sod is the best preparation for corn. It is not necessary to buy commercial fertilizer for the corn, although a small dressing might prove profitable, if the supply of manure is limited. If our inquirer is accustomed to the use and home mixing of fertilizers, he might try the following: Nitrate of soda, 50 pounds; acid phosphate, 200 pounds; muriate of potash, 60 pounds, making a total of 310 pounds per acre, containing approximately 8 1-3 pounds of nitrogen, 28 pounds of available phosphoric acid and 30 pounds of potash; or about 2.7 per cent. of nitrogen, 9 per cent. available phosphoric acid, and 9.6 per cent. potash. The nitrogen content is really too low in this formula, but we have made it so purposely, on account of the extravagant price of commercial nitrogen at present. If a ready-mixed brand of fertilizer is used, one conforming approximately to the above percentage composition should be selected.

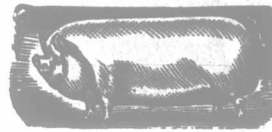
### PAYING EMPLOYEE'S PHYSICIAN AND NURSE.

I worked for a sawmill company for two months during the summer of 1907, at \$2 per day. Their custom was to take 50c. off every man per month for doctor. They kept one dollar back from me for two months. I got sick, I went to the doctor, and he told me I had the fever. He said, "You're not going to work?" I said, "I am going home." He said, "The best thing you can do." He gave me some medicine, rice, and I went home. In a few days, I got worse. My brother telephoned for the doctor to come. He paid him \$15 for his trip. A week later he telephoned again. This time he said he couldn't possibly come, and to get another doctor. This he did. The new doctor came four times to see me. His bill is \$64. The company's doctor said I never would get better without a trained nurse, so he telegraphed and got me one from Toronto. Who is legally entitled to pay this expense, the sawmill company, the doctor whom the company had employed or myself?

**R. D. Ontario.**

**Ans.—**We would say that the doctor ought not to bear the expense in question; but, as between the company and yourself, we are unable to speak without further information respecting the company's practice in the past respecting such cases, and also as to anything further that there might be in the way of an arrangement between them and their employees. It might be advisable for you to treat it as a matter of course that they intend to assume the expense until you hear from them to the contrary; but, in the event of their definitely declining to do so, and before paying the amount yourself, we think you ought to consult a solicitor personally.

## YORKSHIRES of Choicest Type and Breeding.



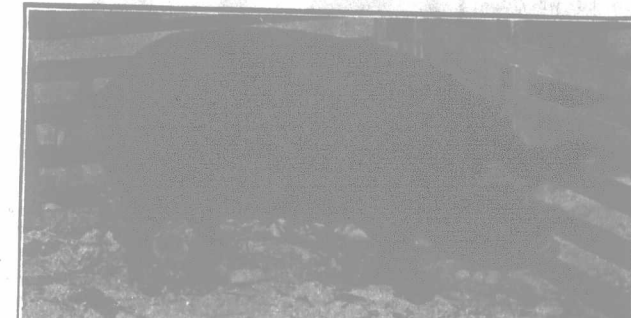
I have on hand 75 brood sows of Princess Fame, Cinderella, Clara, Minnie, Lady Frost and Queen Bee strains. My stock boars are true to type and richest breeding. For sale are a large number of sows bred and ready to breed, boars fit for service, and younger ones of both sexes. Pairs and trios not akin. **J. W. BOYLE, P. O. Box 563, Woodstock, Ont.**

### PINE GROVE BERKSHIRES!

Bred from imp. and Canadian-bred sires and dams, which are of choicest breeding. Stock, all ages, for sale. Some Imp in dam. Guaranteed as represented. **W. W. BROWNIDGE,** Milton, C.P.R. Ashgrove P. O. Georgetown, G.T.R.

### MAPLE GROVE YORKSHIRES

Imported and Canadian bred boars and sows of the best possible breeding, with lots of size and quality. A fine lot of both sexes and all ages. Everything guaranteed as represented. Prices reasonable. **H. S. McDIARMID,** Fingal P. O., Shedden Sta.



## Large English Berkshires

For sale from imported stock. Sows with pig and pigs for sale. All ages. At reasonable prices. Guarantee satisfaction. Boars and sows delivered at Woodstock station, C. P. R. or G. T. R.

**JOSHUA LAWRENCE,** Oxford Center, Ont.

**Elmfield Yorkshires.** 60 young pigs of both sexes, from 4 weeks to 4 months. Also some young sows, bred in August to imp. boar. Prices to suit the times. **G. B. MUMA, Ayr, Ont.**

**For Sale**—Ohio Improved Chester Whites, the largest strain, oldest established registered herd in Canada; young sows in farrow; choice young pigs, six weeks to six months old; pairs not akin; express charges prepaid; post office and safe delivery guaranteed. Address **E. D. GEORGE, Putnam, Ont.**

**MONKLAND YORKSHIRES** are the easily fed, quick maturing kind. The sort the farmers want. All ages for sale. 100 sows bred now. **JAMES WILSON & SONS, FERGUS, ONTARIO.**



**Large White Yorkshires!** An offering at the present time a choice lot of boars ready for service, from imported stock, also young pigs of both sexes, not akin. Prices right, and quality of breeding unexcelled. Write or call on **H. J. DAVIS, WOODSTOCK, ONT.**

**NEWCASTLE TAMWORTHS.** Oldest established herd in Canada. For sale: 12 young sows sired by Colwell's Choice and Newcastle Warrior, both Toronto champions, and bred to Imp. Cholderton Golden Secret; also younger ones, both sexes, by him, and out of dams by above Chs. sires. Several boars fit for service. Will sell right for quick sales. **A. A. COLWILL, NEWCASTLE, ONT.**

**MOUNT PLEASANT HERD of Tamworths and Holsteins.**—For sale: Pigs of either sex, from 6 weeks to 7 months; pairs not akin; also bull and heifer calves under 6 months. Phone in residence. **BERTRAM HOSKIN, The Guyls P. O.**

**OAKDALE BERKSHIRES** Largest Berkshire herd in Ontario. Stock boars and several brood sows imported. For sale: Sows bred and ready to breed, boars ready for service, and younger ones, all ages, richly bred on prize-winning lines and true to type. Everything guaranteed as represented. Long distance phone. **L. E. MORGAN, Milliken P. O., Co. of York.**

**Yorkshires and Tamworths**—Either breed any age, both sexes; sows bred and ready to breed. Yorkshires bred from imp. sire and dam. Tamworths from Toronto winners. Pairs not akin. As good as the breeds produce. **CHAS. CURRIE,** Behav Sta., C.P.R. **Morrison P.O.**

**Meadowbrook Yorkshires.** Young stock of both sexes. A number of sows old enough to breed, all sired by Imp. Dalmeny Topman. Everything guaranteed as represented. **J. H. SNELL, Hagersville P. O. & Station.**

**DUNROBIN STOCK FARM** Clydesdales, YORKSHIRES, Shorthorns. We are booking orders for breeding stock from our grandly-bred Yorkshire sows. Twenty five sows to farrow in the next few weeks. Unrelated pairs a specialty. Write for prices and particulars. **DONALD GUNN & SON, Beaverton, Ontario.** Inspection invited. G. T. R., C. N. O. R. stations 1 1/2 miles from farm. Customers met on notification.

**ENGLISH BERKSHIRES** Boars ready for use. Choice sows to farrow in March and April. Shorthorns of both sexes. **JOHN RACEY,** Lennoxville, Que.

**Glenburn Herd of Yorkshires** Winner of gold medal three years in succession. 6 young boars from 6 to 9 months; also 75 young sows, from 6 to 12 weeks old. **David Barr, Jr., Box 3, Renfrew, Ont.**

**LARGE ENGLISH YORKSHIRES.**—We have a limited number of choice young pigs for sale, bred from our choicest sows and got by the imported boar, Dalmeny Joe 13577 and Broonhouse Beau 14514. Pigs from the latter won all the first prizes at the Ottawa Fat Stock Show last March for the best dressed carcasses, and sweepstakes over all breeds or grades. We guarantee satisfaction in all mail orders. **JOSEPH FEATHERSTON & SON, STREETSVILLE, ONT.**

**Willowdale Berkshires** are unsurpassed for quality and breeding. Young stock, all ages, for sale. Reasonable. Satisfaction guaranteed. Long distance telephone in residence. **J. W. LSON, Importer and Breeder, Milton P. O. and Station, G. T. R. and C. P. R.**

**SUNNYMOUNT BERKSHIRES!** Boars fit for service. Sows bred and safely in pig. Sows fit to be bred. Young pigs just weaned. **JOHN McLEOD,** Milton P. O. and Sta., C.P.R. & G.T.R.

**FAIRVIEW BERKSHIRES** Bred from imported and Canadian-bred sires and dams, and bred on prize-winning lines. My brood sows are large, choice animals. Young stock of both sexes. Some sows bred to imp. boars. **HENRY MASON, SCARBORO P. O.** Street cars pass the door.

### Eastern Ontario Live-stock and Poultry Show.

For the Winter Exhibition, at Ottawa, on January 20th to 24th, special excursion rates will be given on the certificate plan from stations in Ontario, North Bay, Toronto and East, and all stations in the Province of Quebec; lowest one-way first-class fare for the round trip, from Tuesday and Wednesday, January 21st and 22nd, 1908, return limit, Saturday, January 25th, 1908.

Those attending the exhibition will have an opportunity of seeing the approved type of the different classes of live stock on exhibition. They will be able, by inspecting the dressed carcasses on exhibition of animals previously shown alive, to see the kind of carcass required by the butchers, and then by seeing live animals of a type to produce similar carcasses will learn to more easily recognize the type of animal required to produce the sort of carcass required by the butcher. This will make better judges of live stock among the farming community. All these points will be specially drawn to the notice of those in attendance at the lectures, which will take place in the lecture-room in the Fair Building; these addresses being illustrated by both live animals and dressed carcasses.

Judging in all departments will commence at 2 p. m., Tuesday, January 21st.



## STEVENS

firearms cost less than most guns, but they acknowledge no superiors at any price. You can trust the shotguns in the field or the hunt, or the rifles at the range or small game shooting, for sure, hard, straight hitting. They have more records to their credit than all other makes combined.

**HERE ARE OUR LEADERS:** The superior qualities of our firearms for men is found also in our rifles for boys.

Little Scout . . . . .	\$2.25
Stevens-Maynard, Jr. . . . .	3.00
Crack Shot . . . . .	4.00
Little Krag . . . . .	5.00
Favorite . . . . .	6.00

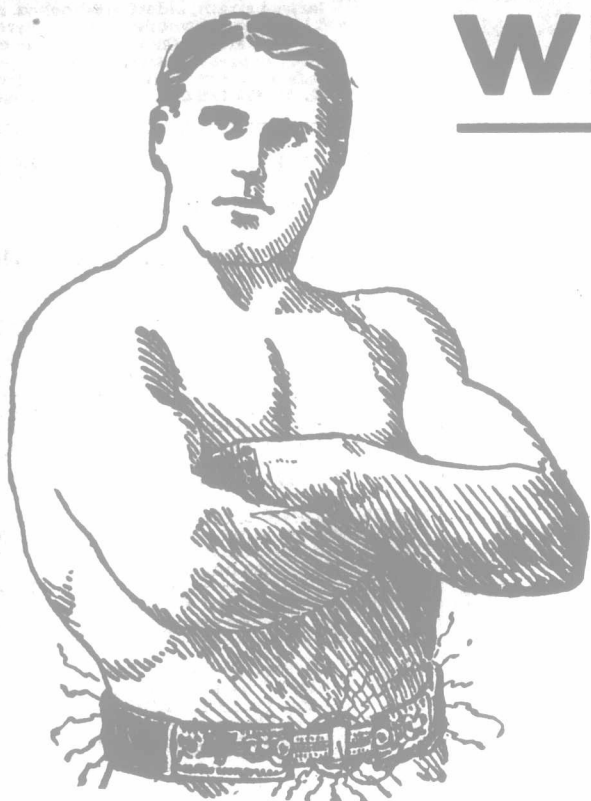
Send for our 160-page catalogue. It will tell anyone much that he ought to know about firearms and their proper care. Send 5c. for postage. If your dealer can't get you the genuine Stevens, notify us.

**J. STEVENS ARMS AND TOOL CO., 25 Front Street, Chicopee Falls, Mass., U. S. A.**

On Tuesday evening there will be a meeting at which there will be a popular programme, with Hon. Nelson Mon-teith occupying the chair. This meeting will be of great interest to everyone, whether or not engaged in agricultural callings. The addresses of a practical nature will commence on Wednesday morning, January 22nd, the first session being devoted to a discussion of subjects relating to dairying. In the afternoon, there will be a discussion of horse subjects, including the question of improving the horse industry and the licensing of stallions. Wednesday evening will again be devoted to dairying. Thursday morning questions in connection with seed grain will be taken up. In the afternoon addresses on cattle, sheep and swine subjects will be taken up. The evening session will be devoted to poultry topics. All the above addresses will be of practical value. Full particulars and programmes may be obtained from A. P. Westervelt, Secretary, Parliament Buildings, Toronto.

"Why didn't you vote for my friend?" asked the politician. "He's the most popular man in the State."

"That's the reason," answered Farmer Brown. "I never yet saw a man that made a business of being popular who had much of a liking for real hard work."



## WEAK MEN, LISTEN!

### I CAN MAKE YOU STRONG!

Have you lost the fire and strength of youth? Have you "come and go" pains in your back and shoulders? Are you growing old too soon? If you have those symptoms or any other sign of breaking down of your nerves and vitality you will find new life in electricity as applied while you sleep.

### Dr. McLaughlin's Electric Belt

is for you—it is the best way to use electricity. It pours a gentle stream of life into the weakened parts continually for hours every night. It refreshes the nerves, expands the vital powers, enriches the circulation, and makes you feel bright, active and vigorous in one night's use. You get stronger each day, and in a few weeks you are stronger and younger in the fire of youth. It cures to stay cured: Nervous Debility, Weakness, Rheumatism, Lumbago, Kidney and Stomach Trouble, Indigestion and Constipation. It is grand, this method of mine. **Business Men, Professional Men, Ministers, Athletes, Men of National Renown** and men in every walk of life who have used it are praising it.

DR. McLAUGHLIN'S ELECTRIC BELT will give back the old vigor of youth. The loss of your health causes Kidney Trouble, Rheumatism and Stomach Ailment. You know it's a loss of vital power that affects every organ of the body. Most of the ailments from which you suffer can be traced to it. It never fails, and to prove this statement I offer you my appliance—

### FREE UNTIL CURED.

So pronounced are my cures, so strong is my faith in my Belt to cure the human ills, that I do not hesitate to make you this offer. All I ask is that you give me security for the Belt while you wear it.

### THE FOLLOWING WERE CURED AND ARE NOW HAPPY:

Dr. McLaughlin: Aspotogan, Lunenburg Co., N. S.

Dear Sir,—I hope you will pardon my delaying so long in thanking you for the benefits your valuable Belt has given me. I can honestly say that it did me more good than all the other medicines put together. I had been troubled with Rheumatism off and on for four or five years, especially in my knee joints and shoulders, but the pain is all gone now, and I cannot recommend your Belt too highly. It is the best remedy in the world for Rheumatism and pain in the back. You are welcome to use this testimonial, and if I can be of any service to you I will gladly render it. Any sufferer desiring to write to me may do so, and I will be pleased to answer.

JAMES A. BOUTILIER.

What ails you? Write and tell me, no matter where you are. I think I can give you the address of someone in your town that I have cured. I have cured thousands, and every one of them is a walking advertisement for my Belt.

Those who have used it, recommend it because it is honest. It does great work, and those whom I have cured are the more grateful because the cure costs so little.

Write to-day for my Free Illustrated Book, and full information.

**CALL TO-DAY!**

**If You Can't Call, Send Coupon for Free Book.**

Dr. McLaughlin: Waterville, N. B.

Dear Sir,—I have used your Belt for two months and am glad to say that it has helped my back a great deal, and, as I was telling a neighbor to-day, my back is better this fall than it has been for years.

CHARLES PALMER.

Dr. McLaughlin: Albert St., Guelph, Ont.

Dear Sir,—I am pleased to tell you that I have not had Rheumatism after wearing your Belt for one month, according to your directions. I feel better now than I have for two years. I shall certainly recommend your Belts to all suffering from Rheumatism and nervous complaints. I remain,

THOS. HEELEY.

Mr. Thos. Johnston, Box No. 233, Deseronto, Ont., says: "It is some five or six years since I got your Belt. I am well satisfied with it. It cured me, and have not been bothered since, and have not used it since then."

Dr. McLaughlin: Columbus, Ont.

Dear Sir,—I should have written you before to let you know what your Belt has done for me. I can say that my back is cured, and as strong as ever. For six months before I started to wear your Belt, I could hardly stoop over to pick up anything off the ground. Sometimes I could not walk, the pain in my back was so bad. I had not worn the Belt more than two months when my back was as well and strong as ever.

PHILIP HARPER, JR.

### DR. M. S. McLAUGHLIN,

112 Yonge St., Toronto, Can.

Dear Sir,—Please forward me one of your books, as advertised.

Name .....

Address .....

Office Hours—9 a. m. to 6 p. m. Wednesday and Saturday until 9 p. m. Sunday, 10 a. m. to 1 p. m.